HP SureStore CD-Writer Plus User's Guide

for your internal drive



Hewlett-Packard Company, 800 S. Taft Ave., Loveland, CO 80537

C4392-90100

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Table of Contents

Chapter	1: Installing CD-Writer Plus and Software
	What's in the Package
	Uninstalling the Software
Chapter	2: Using Your CD-Writer Plus
	Using CDs. 2-1 Maintenance 2-4 Identifying CD-Writer Plus's Drive Letter 2-4
Chapter	3: Problem Solving
	Things to Try First
Chapter	4: Sharing Your CDs
	Varying Formats
Chapter	5: Making Data CDs
	Making Data CDs to Use on Your Own Computer5-1Making Data CDs to Use on Different Types of Computers5-6Getting Help5-8

Chapter 6: Making Music CDs
Starting Easy CD Creator 6-1 Making a Music CD 6-2 Modifying Your CD Layout 6-8 Playing Music CDs 6-9 Getting Help 6-10
Chapter 7: Making Inserts and Labels
How to Make a Jewel Case Insert or a Label
Chapter 8: Copying CDs
What Types of CDs Can I Copy? 8-1 Starting CD Copier. 8-2 Making a Copy of a CD 8-3 Getting Help. 8-5
Chapter 9: HP Simple Trax
Welcome to HP Simple Trax 9-1 Protecting Files and Folders Immediately 9-2 Creating a Protection List 9-3 Scheduling a Protection Session to Run Automatically 9-4 Retrieving Protected Files and Folders 9-6 Searching the HP Simple Trax Information Vault 9-9 Reconstructing the HP Simple Trax Information Vault 9-11 Importing CDs into HP Simple Trax 9-11 HP Simple Trax Control Panel Overview 9-12
Chapter 10: HP Disaster Recovery
Getting Started

Appendix A: Technical Inform	mation
	ements
Drive Specifications	A-3
Appendix B: Customer Supp	
Before You Call HP	B-1
HP Customer Support	B-5
Returning a Drive	

Product Certifications

UL, cUL, TÜV, CE, C-Tick, meets or exceeds FCC Class B Requirements Laser: CDRH

Laser Safety

This unit employs a laser. Do not remove the cover or attempt to service this device when connected due to the possibility of eye damage.

Laser-Sicherheit

In das Gerät ist ein Laser eingebaut. Nehmen Sie die Abdeckung nicht ab und versuchen Sie nicht, das Gerät zu reparieren, solange es angeschlossen ist. Es besteht die Gefahr einer Augenverletzung.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser radiation exposure.

WARNUNG

Die Vornahme von Regelungen oder Einstellungen oder die Durchführung von Verfahren, die nicht in diesem Dokument angegeben sind, kann eine gefährliche Einwirkung von Laserstrahlung zur Folge haben.

Class 1 Laser Product

Klass 1 Laserapparat

Luokan 1 Laserlaite

Klasse 1 Laser-Produkt

DANGER: INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. DANGER: RADIATIONS INVISIBLES DU LASER EN CAS D'OUVERTURE. EVITER TOUT

EXPOSITION DIRECTE AU FAISCEAU.

VORSICHT: UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET. NICHT

DEM STRAHL AUSSETZEN.

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDS/ETTELSE FOR STRÅLING. ADVARSEL: USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING: OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG. VARO! NÄKYMÄTÖN AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEN.

Laser

Type: Semiconductor laser GaAlAs Wave length: 778~787 nm (at 25°C)

Output power: 2.5 mW (read), 35 mW (write)

Beam divergence: 60 degrees

Notice

Europe: This drive shall be installed only with an EN60950 (IEC950) approved power supply.

USA/Canada: This drive is for use only with IBM compatible UL listed personal computers, weighing less than 18 kg.

Federal Communications Commission R.F. Interference Statement

WARNING: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications to this equipment not expressly approved by Hewlett-Packard could result in violation of Part 15 of the FCC rules.

DECL	ARATION	OF	CONFO	RMITY

according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Company

Colorado Memory Systems Division

Manufacturer's Address: 800 S. Taft Ave.

Loveland, Colorado 80537

declares that the product:

Product Name: HP SureStore CD-Writer Plus 8100i
Product Number: C4392-56000. C4400-56000

Product Options: All

conforms to the following Product Specifications:

EN60950 A3:1995 EN60825-1:1994

Safety: CISPR 22:1993/EN 55022:1994 Class B

EN 50082-1:1992

IEC 801-2:1991 - 4kV CD, 8kV AD

EMC: IEC 801-3:1984 - 3V/m

IEC 801-4:1988 1kV Power Lines 0.5kV Signal Lines ENV 50140:1993 - 3V/m FCC Part 15 Class B

FCC Part 15 Class B AS/NZS 3548: 1995

IEC 555-2

Supplementary Information

The product herewith complies with the requirements of the EMC Directive 89/336/EEC and carries the "CE" mark accordingly.

July 01, 1998 Nicholas Balogh, Manufacturing Manager

European contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE, Herrenberger Stra β e 130, D-71034 Böblingen (FAX: +49-7031-143143).

FCC Declaration of Conformity

According to 47CFR, Parts 2 and 15, Class B Computer Peripherals:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference (2) this device must accept any interference received including interference that may cause undesired operations. This applies to all product options.

Hewlett-Packard Company Colorado Memory Systems Division 800 S. Taft Ave. Loveland, Colorado 80537 USA Telephone 970-635-1500

July 1, 1998 Nicholas Balogh, Manufacturing Manager

Canadian Standards Association Information Statement

INSTRUCTION TO USER:

WARNING: This component is only considered to be approved when installed in CSA certified equipment evaluated to the standards C22.2 No. 220-M1986 or C22.2 No. 950-M89. The operator accessibility into the end use enclosure is defined with strict accordance in the operator's manual for the installation of components into the equipment.

BAPT Statement

Diese Ausrüstung erfüllt die Europäischen EMC-Bestimmungen für die Verwendung in folgender / folgenden Umgebung(en):

- Wohngegenden
- Gewerbegebiete
- Leichtindustriegebiete

(Diese Ausrüstung erfüllt die Bestimmungen der Norm EN55022, Klasse B.)

Korean RRL Statement

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Copyright ved brug af CD-Writer 8100i/e enheder solgt i Danmark

I henhold til gældende dansk lov om ophavsret er det forbudt at foretage digital kopiering af et digitalt værk. CD-RW brænderen må derfor IKKE anvendes til at kopiere en musik-CD. CD-RW brænderen må desuden kun benyttes til at kopiere et digitalt EDB-program, når en sådan kopiering tjener til at fremstille et sikkerhedseksemplar af programmet eller hvor kopiering er nødvendig, for at programmet kan anvendes efter dets formål. Hvis De selv har ophavsretten til værket, har De også retten til at foretage digital kopiering med CD-RW brænderen.

Hewlett-Packard Limited Warranty Statement

HP SureStore CD-Writer Plus Drive DURATION OF LIMITED WARRANTY

Hardware - 1 year Software - 90 days

- 1. HP warrants to you, the end-user customer, that HP hardware, accessories and supplies will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or like-new.
- 2. HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software media which does not execute its programming instructions due to such defects.
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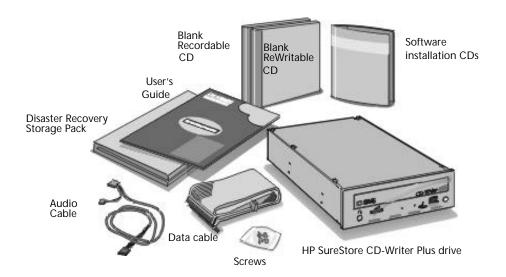
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Chapter 1:

Installing CD-Writer Plus and Software

What's in the Package

Make sure you have the items shown below. (Keep the packaging in case you need to transport the CD-Writer Plus drive.)



NOTE: You may not need the data cable and the audio cable depending on your computer's configuration.

Tools You'll Need

Locate the following items, before you begin to install the drive:

■ A medium-size Phillips screwdriver



 Your computer system's manual (you may need to look up information about the location of your IDE connectors)

Before You Begin

Before you begin the installation you need to decide whether you will be installing the CD-Writer Plus in an empty drive bay, or whether you will be replacing an existing CD-ROM with the CD-Writer Plus drive. To install the CD-Writer Plus:

- In an empty drive bay, see page 1-3.
- As a replacement for an existing CD-ROM, see page 1-20.

NOTE: In the Toshiba Infinita and IBM Aptiva computers, install the CD-Writer Plus in an empty drive bay, and not as a replacement for an existing CD-ROM drive. Because of the fit between the CD-Writer Plus and these computers it may not be possible to replace the CD-ROM drive with the CD-Writer Plus drive.

Installing a CD-Writer Plus in an Empty Drive Bay

Follow the instructions in this section if you will be adding a CD-Writer Plus to your computer (not replacing a CD-ROM).

Watching the Installation Video

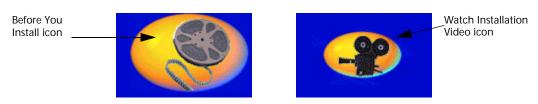
1. Insert the CD labeled Software Disc 1 into your CD-ROM drive (not the CD-Writer Plus drive). The main menu appears:



If the main menu does not appear automatically, click on the **Start** button on the task bar, select **Run**, type D:\SETUP (where D: is your CD drive's letter), then click on **OK**.

If your computer does not have a CD-ROM drive, see page A-1.

Watch the installation video (about 6 minutes). To do this, click on the Before You Install icon and then click on the Watch Installation Video icon.

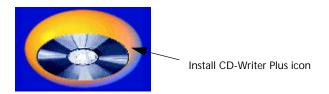


If you would like to, explore some of the other information options that appear on the screen.

Getting an Install Recommendation

CD-Writer Plus' installation program will analyze your computer and make a recommendation about connecting the CD-Writer Plus hardware. This recommendation is specific to your computer and is the first step in successfully installing CD-Writer Plus.

1. Go back to the main menu and click on the Install CD-Writer Plus icon.



- 2. Follow the instructions on the screen.
- When the CD-Writer Plus Install Recommendation screen appears, click Print. Or, if you don't have a printer, copy the information by hand. You'll need this information in the next section.

Installing the Hardware

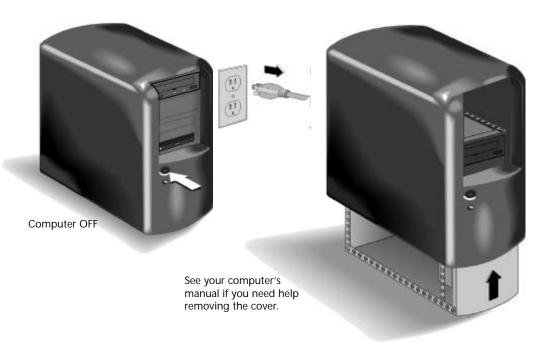


CAUTION: The discharge of static electricity can damage electronic circuitry. You can avoid static discharge by touching a grounded metal object such as your computer's case before and during installation of hardware inside your computer or by wearing a grounding strap connected to ground.

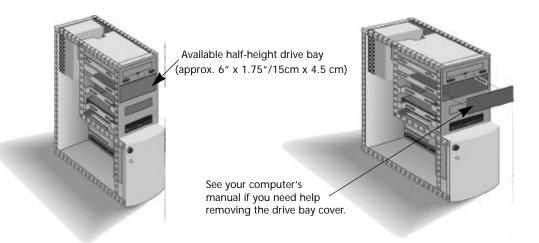
- 1A. After getting the Install Recommendation (see the previous section) you will be prompted to shut down Windows. Click the **Shutdown** button and wait until it is safe to turn off your computer. Proceed to turn OFF your computer, monitor, and other devices.
- 2A. Unplug the power cords from the wall outlet or from the power strip, if you use one.
- 3A. Remove the cover from your computer



CAUTION: Be careful of any sharp edges that may be present inside your computer.



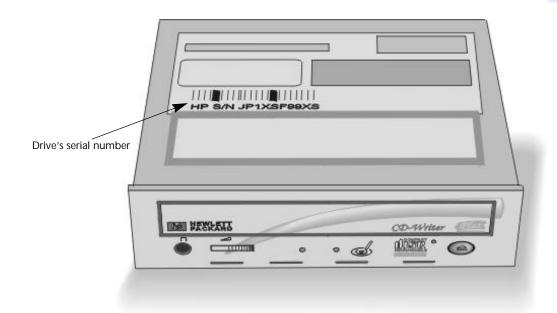
4A. Remove the cover plate from a larger half-height drive bay.



5A. Look at the other drives that are installed in your computer to see if your computer's case requires rails or mounting brackets to hold a drive in place. If it does, use an extra set of rails that came with your computer and attach them to the sides of CD-Writer Plus. If you do not have an extra set, contact your computer's manufacturer to obtain rails.

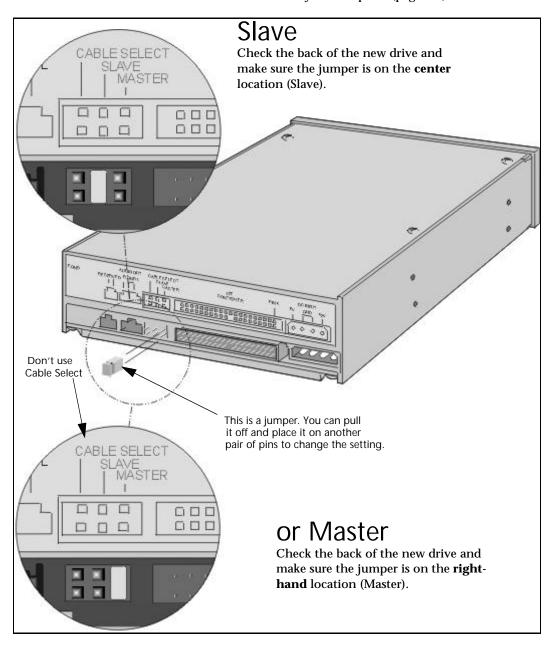
6A. Write down the CD-Writer Plus' serial number in the space below. The serial number is on the main label on the top of the drive.

Serial	
number:	
mumber.	

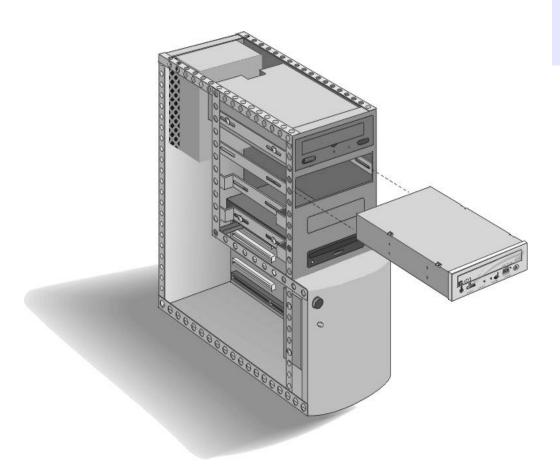


- 7A. Read the Install Recommendation you printed earlier (see page 1-4). The Install Recommendation tells you whether the jumper on the CD-Writer Plus should be set as Master or Slave for your computer.
- 8A. Find the pairs of pins labeled Master, Slave, and Cable Select on the back of the CD-Writer Plus. Notice that one pair of pins has a small plastic cap or jumper. This jumper can be pulled off using your fingers, tweezers, or needlenose pliers, and placed on a different pair of pins to change the setting.

9A. Set the jumper on the CD-Writer Plus as advised in the Install Recommendation Printout for your computer (page 1-4).



10A. Insert the drive into the selected drive bay. Be careful not to dislodge any cables inside your computer as you do this.



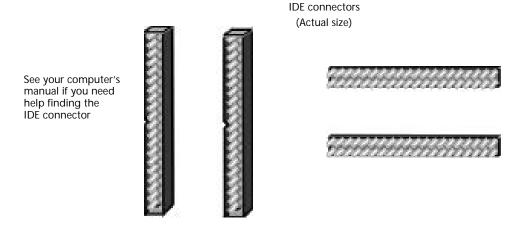
11A. Look at the Install Recommendation Printout (see page 1-4) again and find whether the data cable should be connected to the primary or secondary IDE controller on your computer.

TIP (for Two Devices connected to the data cable): If the Install Recommendation states that your CD-Writer Plus drive will share the data cable with another device (such as a CD-ROM drive), follow the cable already attached to the other device down to the circuit board in order to locate the IDE controller that you need. If you find an extra connector along that cable, simply attach that connector to the CD-Writer Plus drive.

12A. Locate the recommended 40-pin IDE controller (primary or secondary) on your computer's motherboard.

The IDE connectors are on the motherboard, which is the largest circuit board in your computer, taking up most of the bottom of a desktop computer or the side of a tower computer.

IDE connectors are usually found in pairs and may look like any of the following:



You will see a variety of connectors inside your computer that *look* similar to the 40-pin connector but have more or fewer pins. Find the connectors that are the correct size to fit the cable that came in the box with your drive.

The IDE connectors may be hidden by some of the computer's cables or may be behind a drive.

Many computers have an IDE hard drive or CD-ROM that connects to the motherboard through an IDE controller. The data cables on these drives have the same width as the data cable included with your CD-Writer Plus. If your computer has an IDE hard drive or CD-ROM drive, you can follow the data cable from the back of one of those drives and find the IDE controller that connects it to the motherboard.

Computer manufacturers use a wide variety of labels for IDE connectors! Look on your computer's circuit boards for printing identifying the primary and secondary connectors, such as:

- PRI and SEC
- IDE-0 and IDE-1
- IDE-1 and IDE-2
- HD and CD-ROM (most common devices to be attached)
- PCI-IDE and ISA-IDE
- 13A. Refer to the Install Recommendation Printout (see page 1-4) to see if you will have one or two devices connected to the data cable.

On page 1-13 you can see what a One Device installation looks like compared to a Two Device installation.

14A. Make the necessary data cable connections for your system.

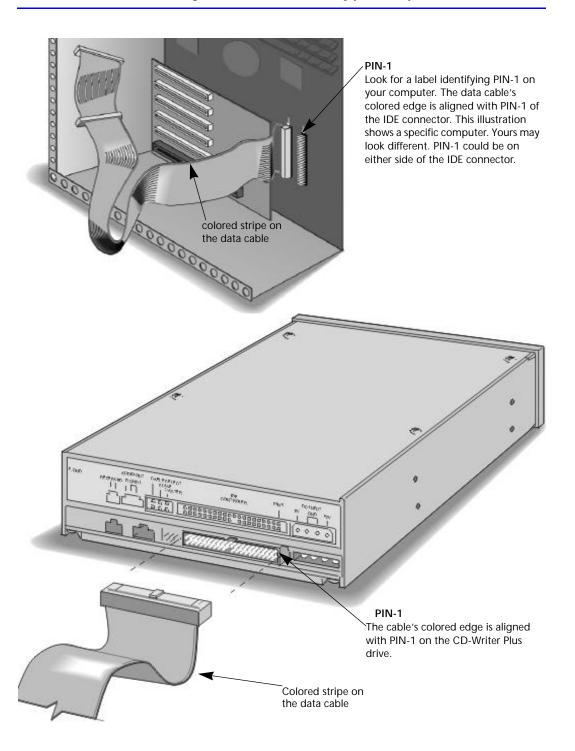


CAUTION: Do not attach the CD-Writer Plus drive to a sound board's IDE controller.

Most data cable connectors are keyed to fit only one way. If your connector is not keyed to fit only one way make sure the cable's colored edge is aligned with PIN-1 where it connects to the CD-Writer Plus drive and where it connects to the IDE controller on the motherboard. Among the labels you may find that identify PIN-1 on the motherboard are PIN1, 1 or a small triangle pointing to the pin.



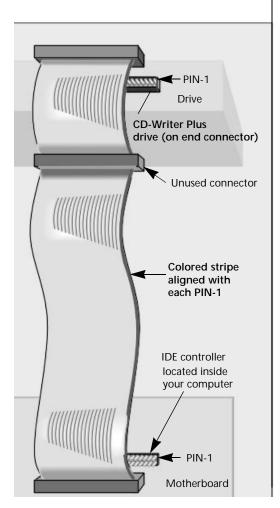
CAUTION: Make sure that you are attaching the cable correctly! You must locate PIN-1 on each connector and attach the cable so that the edge with the color stripe is aligned with PIN-1. If the cable is attached incorrectly, your computer may not boot up.



One Device

The OPTIONAL data cable that came with the CD-Writer Plus drive is *only* used if there is no cable already attached to the recommended IDE controller in your computer system or the cable supplied with your computer is not long enough.

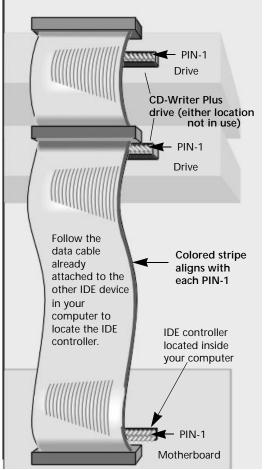
Use the connectors at the two ends of the cable.



Two Devices

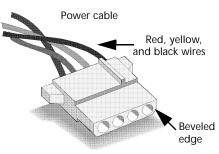
Attach the CD-Writer Plus to whichever connector is not in use (center or end) on the data cable already installed in your computer (DO NOT swap connectors).

The OPTIONAL data cable that came with the CD-Writer Plus is *only* used if there is no spare connector for the CD-Writer Plus on your cable or your cable is not long enough.

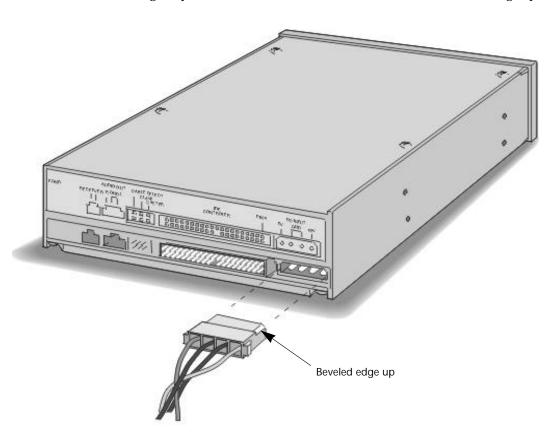


15A. Find an unused power cable inside your computer. There are a few unused power cables like the one shown inside most computers.

NOTE: If you do not have an available power connector, you will need to purchase a Y-power cable that expands one power connector into two. Call your local computer hardware vendor to purchase one.



16A. Plug the power cable into the back of the drive, with the beveled edge up.



MPC-2 connector

Audic cable

17A. If you do not have a sound board or only want to listen to music discs using headphones or speakers attached to the front of the CD-Writer Plus, skip this step and go to step 18A.

You do not need an audio cable to record music. The audio cable is used only for listening to music CDs through your computer's sound system.

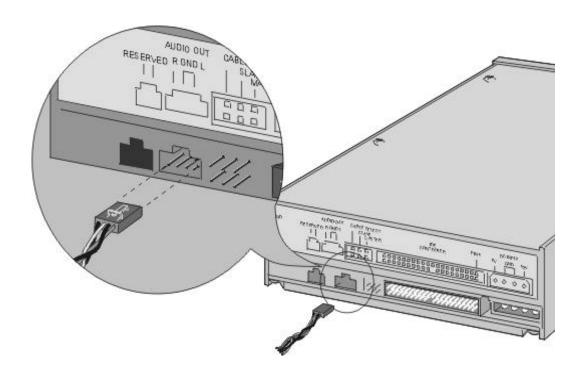
When the CD-Writer Plus drive records music or data, it uses the data cable, not the audio cable.



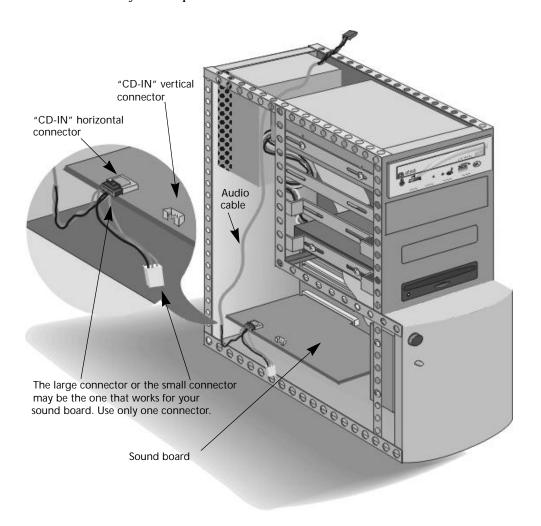
If your sound board already has a spare audio cable with an MPC-2 connector (shown above), plug the MPC-2 connector it into the Audio Out opening on the back of the CD-Writer Plus drive.

Using the audio cable provided with your CD-Writer Plus

To use the audio cable that came with your CD-Writer Plus, first plug the end with only one connector to the Audio Out opening on the back of the CD-Writer Plus drive.



Next, connect the other end of the audio cable to the sound board inside your computer.



Tips for connecting the audio cable to the sound board

Identify the sound board.

To identify the sound board look for microphone connectors on the back of your computer. The circuit board inside the computer attached to the microphone connectors is the sound board.

Identify the audio connectors on the sound board.

The audio connectors have four prongs and are often on the outer edge of the sound board. On many sound boards the connectors for the audio cable are labeled CD IN.

■ Select the connector on the audio cable that fits your sound board.

The audio cable has two connectors in order to work with most sound boards. Try to match one of them to a connector on your sound board.

The audio cable may connect horizontally or vertically to the sound board. The connectors only fit one way. If a connector doesn't fit, try turning it around.

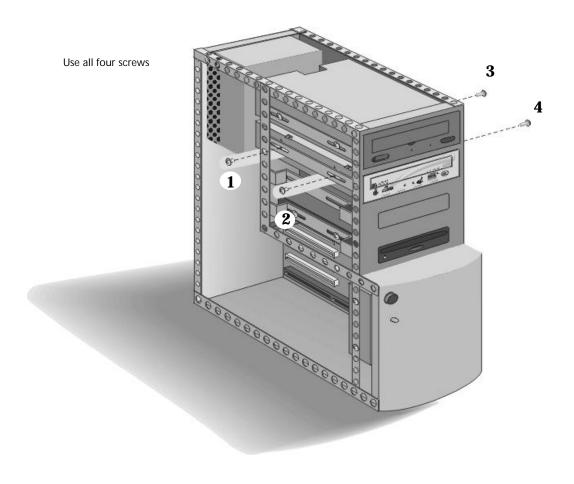
Use only one of the two connectors on this end of the audio cable. Simply leave the connector you don't use unattached.

■ Some sound boards have more than one audio cable connector. If when you turn your computer back on you get no sound, try using a different connector on your sound board.

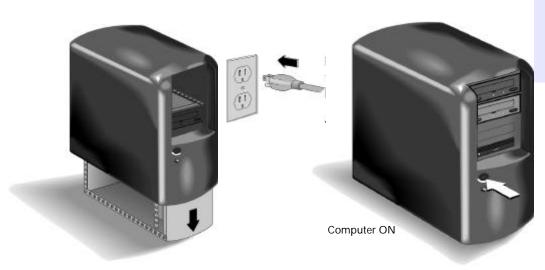
NOTE: The audio cable provided with CD-Writer Plus will work with most sound boards. If you need to purchase a different audio cable, contact your local computer hardware vendor. Be sure to identify the type of sound board you have and specify that you require an MPC-2 connector at the drive.

18A. Secure the drive into the bay, using the screws included with your drive or any M3x0.5x6mm metric screw. (Do not use a screw longer than 6 mm.)

If your computer uses rails or mounting brackets (see step 5) you may not need screws to secure the rails in the bay.



19A. Replace your computer's cover.



20A. Plug your computer, monitor, and other devices into a wall outlet or power strip, and turn ON your computer. (The power plug and outlet may look different in your country. The U.S. version is shown.)

Replacing an Existing CD-ROM Drive With a CD-Writer Plus

Follow the instructions in this section if you will be removing a CD-ROM drive from your computer before installing the CD-Writer Plus.

Watching the Installation Video

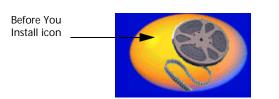
1. Insert the CD labeled Software Disc 1 into your CD-ROM drive (not the CD-Writer Plus drive). The main menu appears:

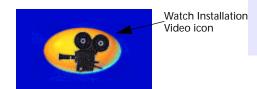


If the main menu does not appear automatically, click on the **Start** button on the task bar, select **Run**, type D:\SETUP (where D: is your CD drive's letter), then click on **OK**.

If your computer does not have a CD-ROM drive, see page A-1.

 Watch the installation video (about 4 minutes long). To do this, click on the Before You Install icon and then click on the Watch Installation Video icon.



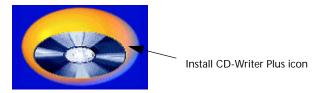


If you would like to, explore some of the other information options that appear on the screen.

Getting an Install Recommendation

CD-Writer Plus' installation program will analyze your computer and tell you what jumper setting the CD-Writer Plus should use to work correctly on your computer. Jumper settings are explained on page 1-25. Getting this install recommendation is the first step in successfully installing your CD-Writer Plus.

1. Go back to the main menu and click on the Install CD-Writer Plus icon.



Follow the instructions on the screen.

2. When the CD-Writer Plus Install Recommendation screen appears, click **Print.** Or, if you don't have a printer, copy the information by hand. You'll need this information in the next section.

Installing the Hardware



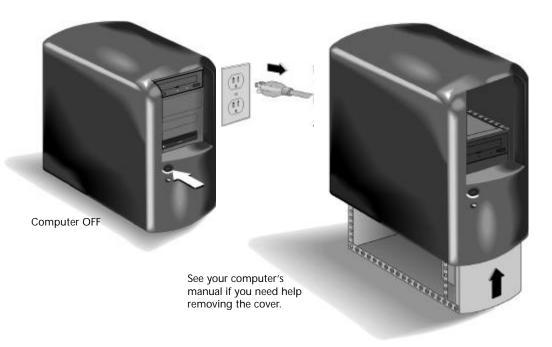
CAUTION: The discharge of static electricity can damage electronic circuitry. You can avoid static discharge by touching a grounded metal object such as your computer's case before and during installation of hardware inside your computer or by wearing a grounding strap connected to ground.

REMOVE the CD labeled Software Disc 1 from your CD-ROM drive.

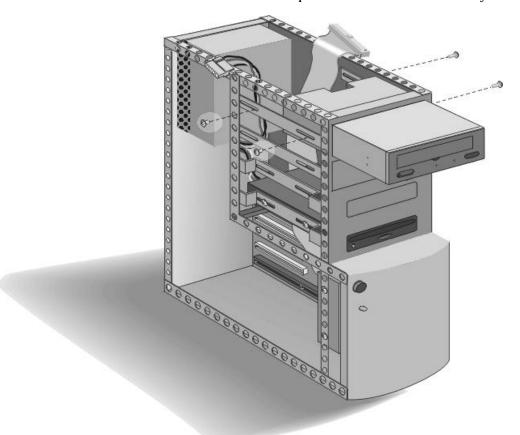
- 2B. After getting the Install Recommendation (see the previous section) you will be prompted to shut down Windows. Click the **Shutdown** button and wait until it is safe to turn off your computer. Proceed to turn OFF your computer, monitor, and other devices.
- 3B. Unplug the power cords from the wall outlet or from the power strip, if you use one.
- 4B. Remove the cover from your computer.



CAUTION: Be careful of any sharp edges that may be present inside your computer.



5B. Remove the CD-ROM drive from your computer. To do this, remove all screws holding the CD-ROM drive in the bay and unplug all cables from the back of the CD-ROM drive. As you unplug them, lay the cables aside so they will be easy to find, since you will be plugging them into the CD-Writer Plus drive later on. Then pull the drive out of the drive bay.

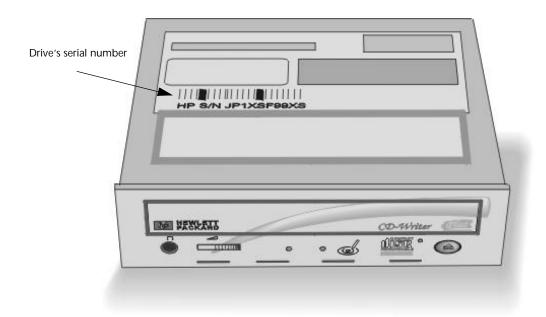


NOTE: You will not need to use the data cable that came with your CD-Writer Plus drive. If you already have an audio cable to connect the drive to the sound card, you will not need the one that came with the CD-Writer Plus.

6B. Look at the sides of the CD-ROM drive you removed. If it has rails or mounting brackets attached to the sides, remove them from the CD-ROM drive and attach them to the CD-Writer Plus.

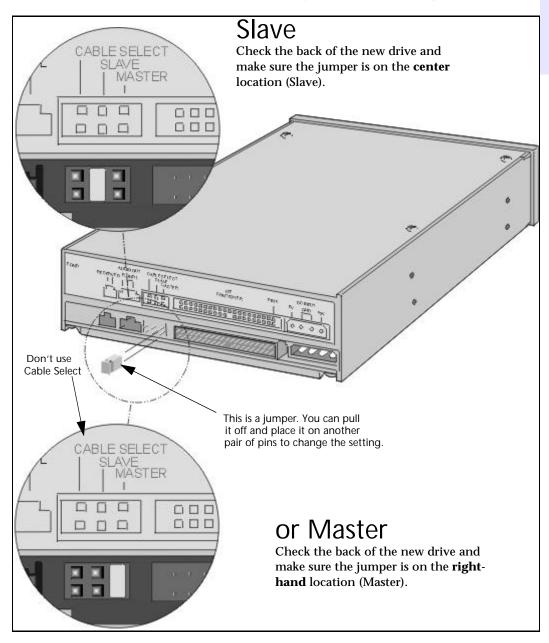
7B. Write down the CD-Writer Plus' serial number in the space below. The serial number is on the main label on the top of the drive.

Serial number:

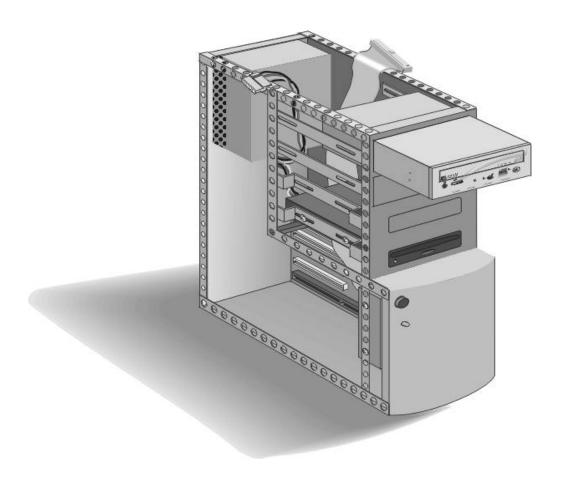


- 8B. Read the Install Recommendation you printed earlier (see page 1-21). The Install Recommendation tells you whether the jumper on the CD-Writer Plus should be set as Master or Slave for your computer.
- 9B. Find the pairs of pins labeled Master, Slave, and Cable Select on the back of your CD-Writer Plus. Notice that one pair of pins has a small plastic cap or jumper. This jumper can be pulled off using your fingers, tweezers, or needlenose pliers, and placed on a different pair of pins to change the setting.

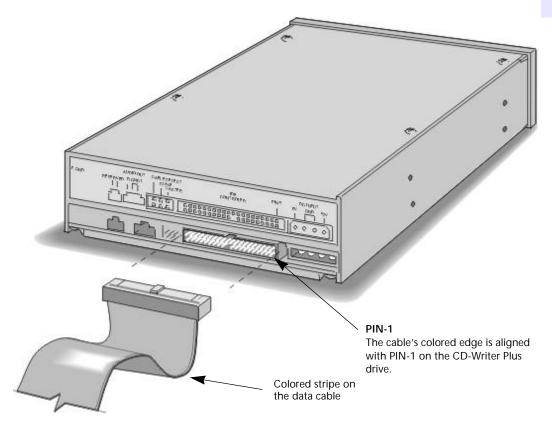
10B. Set the jumper on the CD-Writer Plus as advised in the Install Recommendation Printout for your computer. (see page 1-21)



11B. Insert your CD-Writer Plus into the drive bay previously occupied by your CD-ROM drive.



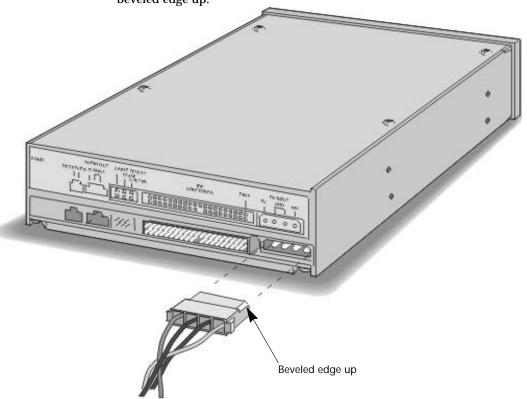
12B. The wide, flat cable that you previously unplugged from the CD-ROM drive is the data cable. Plug the data cable into CD-Writer Plus. Most connectors are keyed so that they only fit one way. If your connector is not keyed to fit only one way, make sure the cable's colored edge is aligned with PIN-1, which is clearly marked on the CD-Writer Plus drive.





CAUTION: Make sure that you are attaching the cable correctly! You must locate PIN-1 on each connector and attach the cable so that the edge with the color stripe is aligned with PIN-1. If the cable is attached incorrectly, your computer may not boot up.

13B. Plug the power cable into the back of the CD-Writer Plus, with the beveled edge up.

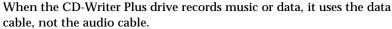


MPC-2 connector

Audio cable

14B. If you do not have a sound board or only want to listen to music discs using headphones or speakers attached to the front of the CD-Writer Plus, skip this step and go to step 15B.

You do not need an audio cable to record music. The audio cable is used only for listening to music CDs through your computer's sound system.

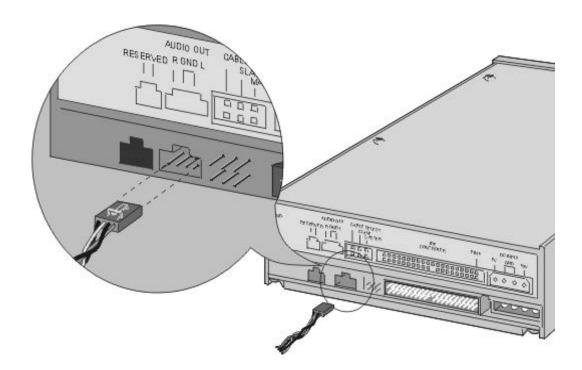


Using an existing audio cable

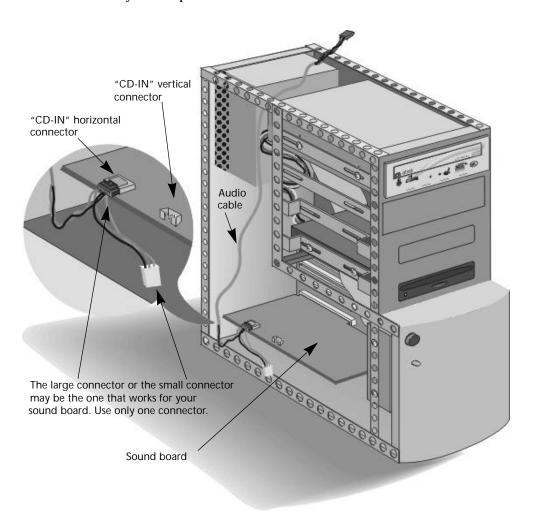
If your sound board already has a spare audio cable with an MPC-2 connector (shown above), plug the MPC-2 connector it into the Audio Out opening on the back of the CD-Writer Plus drive.

Using the audio cable provided with your CD-Writer Plus

To use the audio cable that came with your CD-Writer Plus, first plug the end with only one connector to the Audio Out opening on the back of the CD-Writer Plus drive.



Next, connect the other end of the audio cable to the sound board inside your computer.



Tips for connecting the audio cable to the sound board

■ Identify the sound board.

To identify the sound board look for microphone connectors on the back of your computer. The circuit board inside the computer attached to the microphone connectors is the sound board.

Identify the audio connectors on the sound board.

The audio connectors have four prongs and are often on the outer edge of the sound board. On many sound boards the connectors for the audio cable are labeled CD IN.

■ Select the connector on the audio cable that fits your sound board.

The audio cable has two connectors in order to work with most sound boards. Try to match one of them to a connector on your sound board.

The audio cable may connect horizontally or vertically to the sound board. The connectors only fit one way. If a connector doesn't fit, try turning it around.

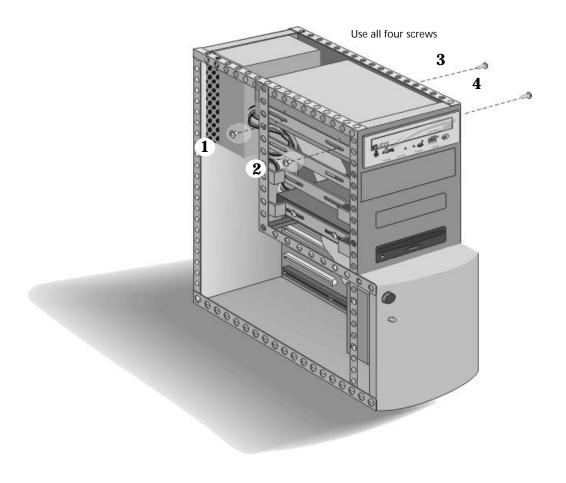
Use only one of the two connectors on this end of the audio cable. Simply leave the connector you don't use unattached.

Some sound boards have more than one audio cable connector. If when you turn your computer back on you get no sound, try using a different connector on your sound board.

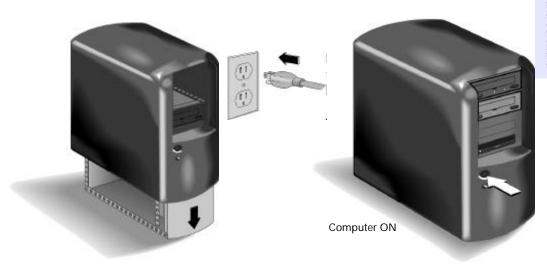
NOTE: The audio cable provided with CD-Writer Plus will work with most sound boards. If you need to purchase a different audio cable, contact your local computer hardware vendor. Be sure to identify the type of sound board you have and specify that you require an MPC-2 connector at the drive.

15B. Secure the drive into the bay using the screws included with your drive or any M3x0.5x6mm metric screw. (Do not use a screw longer than 6 mm.)

If your computer uses rails or mounting brackets (see step 6) you may not need screws to secure the rails in the bay.



16B. Replace your computer's cover.



- 17B. Plug your computer, monitor, and other devices into a wall outlet or power strip and turn ON your computer. (The power plug and outlet may look different in your country. The U.S. version is shown.)
- 18B. Go to page 1-34 for instructions on how to install the software.

Installing Software: Windows 95, Windows 98, or Windows NT 4.0

 When you have turned your computer back on and it has started up, the CD-Writer Plus software will search for the new drive and make sure that it is communicating properly. You will be prompted to insert the CD labeled Software Disc 1 if it is not already in the drive.



Software installation will automatically continue. Follow the instructions on the screen to install the software you want.

Uninstalling the Software

You can remove all CD-Writer Plus programs or individual programs.



CAUTION: If you want to reinstall any software, be sure to uninstall the original program.

To remove CD-Writer Plus programs:

- 1. Click the Start button.
 - Point to **Programs**
 - Point to HP CD-Writer Plus
 - **■** Point to **Tools & Information**
 - Point to Utilities
 - **■** Click Uninstall
- 2. Select the programs that you wish to remove.
- 3. Click the Finish button.

The software is removed, including all related entries in your system registry.

If You Have Problems

Did you read the Install Recommendation? (see page 1-4 if you installed in an empty drive bay, or page 1-21 if you replaced a CD-ROM)

There are many factors that need to be taken into consideration when installing an IDE device. By reading the Install Recommendation, you will know how to install successfully without needing to evaluate the technical details.

Can't find the IDE controller in your computer?

Check the manual that came with your computer or call the computer manufacturer for assistance. The IDE controller may be located on the motherboard or a daughter board. It may be hard to find because it is behind some other component inside your computer such as the power supply. Or, your computer may not have a connector attached for access to the IDE controller. DO NOT ATTACH THE CD-WRITER PLUS DRIVE TO A SOUND BOARD'S IDE CONTROLLER. Do not use the Colorado IDE Adapter board as an alternate IDE controller for the CD-Writer Plus.

Now your computer won't boot up!

- Turn your computer off and then back on.
- Turn off and unplug your computer. Double-check each connector along the data cable and straighten any bent pins. The connectors are inserted properly when all pins are covered and the colored stripe on the side of the data cable lines up with PIN-1 of each connector.
- Is the power cable attached correctly to each device?
- If you are sharing the IDE data cable between the CD-Writer Plus drive and another device, did you change the data-cable (middle/end) connector attached to the device that was already inside your computer? Did you follow the Install Recommendation's instructions for determining the jumper setting on page 1-4 (installation in an empty drive bay) or page 1-21 (CD-ROM replacement)?

If you changed the data-cable connector location, change it back to the original position. The other device may be jumpered to Cableselect rather than Master or Slave. If this is true, the location of the data-cable connector (middle/end) is very important.

The CD-Writer Plus drive doesn't show up in My Computer or Explorer.

- If you cannot find the CD-Writer Plus drive in Explorer, restart your computer, or shut it down and then turn it on again.
- Is the CD-Writer Plus drive receiving power? (Test this by opening and closing the tray by pressing the eject button on the front of the drive.)
- Turn off and unplug your computer.
 - Double-check each connector along the data cable. The connectors are inserted properly when all pins are covered and the colored stripe on the side of the data cable lines up with PIN-1 of each connector.
- If you are sharing the IDE data cable between the CD-Writer Plus drive and another device, did you change the data-cable (middle/end) connector attached to the device that was already inside your computer? Did you follow the Install Recommendation Printout's instructions for the jumper setting on page 1-4 (installation in an empty drive bay) or page 1-21 (CD-ROM replacement)?

If you switched the data cable connector on the other device, change it back to the original position. A device attached to the end connector of the data cable to begin with, should be attached to the end connector after installing the new drive. If it was originally attached to the middle connector, it should remain attached to the middle connector. The other device may be jumpered to Cable-select rather than Master or Slave. If this is true, the location of the datacable connector (middle/end) is very important.

Not sure which drive letter was assigned to the CD-Writer Plus?

The CD-Writer Plus drive will have a drive icon just like a CD-ROM drive icon. You can determine which icon is your CD-ROM drive and which icon is your CD-Writer Plus drive by double-clicking on the **My Computer** icon, right-clicking on the CD drive's icon, and selecting **Eject**. The tray of the selected drive will open.

The device that is sharing the IDE data cable with my CD-Writer Plus drive doesn't show up in Explorer or doesn't work any more.

- Turn off and unplug your computer.
- Make sure that the power cables are securely attached to both devices.

- If you are sharing the IDE data cable between the CD-Writer Plus drive and another device, did you change the data-cable (middle/end) connector attached to the device that was already inside your computer?
 - If yes, change the data-cable connector location back to the original position. The other device may be jumpered to Cable-select rather than Master or Slave. If this is true, the location of the data-cable connector (middle/end) is very important.
- For Sony and Goldstar CD-ROMs, try configuring the CD-Writer Plus as Master and the CD-ROM as Slave.

Does your computer meet the minimum system requirements.

See Minimum System Requirements on page A-1.

Error message when I double-click on the CD-Writer Plus icon.

- There is no CD in the CD-Writer Plus drive. Insert a CD and try again.
- After inserting a CD, you need to wait a moment to let the CD-Writer Plus drive read the disc information (wait until the light on the front of the drive stops flashing and stays green), then click on the CD-Writer Plus drive's icon again.
- The CD may be in the tray upside-down or a little off-center; try reinserting the CD. The label should be facing up.
- You are trying to read from a blank recordable CD. Try again after copying some information to the CD.

I already placed Software Disc 1 in the CD-Writer Plus but it continues to prompt me to insert the CD.

- Make sure the jumper on the CD-Writer Plus is set as advised in the Install Recommendation Printout for your computer (see page 1-21 and page 1-25).
- Check the data cable and make sure the cable's colored edge is aligned with PIN-1 on the CD-Writer Plus drive (see page 1-27).

Chapter 2:

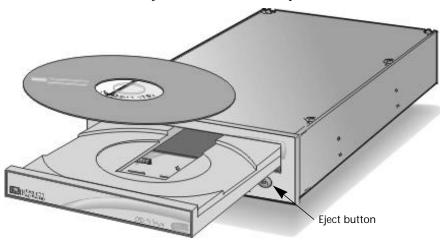
Using Your CD-Writer Plus

This chapter describes how to use, purchase, and care for CDs, how to take care of your drive, and how to find out its drive letter.

Using CDs

Inserting a CD

- 1. Press the eject button on the CD-Writer Plus front panel.
- 2. Set the CD in the tray with the labeled side up.



3. Press the eject button again or push gently on the front of the tray to shut the tray.

When you access the CD-Writer Plus drive from within a program, you should be able to read the files on the inserted CD. If you have problems:

- The CD may be in the tray upside-down or a little off-center; try reinserting the CD. The label should be facing up.
- After inserting a CD, you need to wait a moment to let the CD-Writer Plus drive read the disc information (wait until the light on the front of the drive stops flashing and stays green), then click on the CD-Writer Plus drive's icon again.
- Are you trying to read from a blank recordable CD? Try again after copying some information to the CD.

Removing a CD

- 1. Press the eject button on the CD-Writer Plus front panel.
- 2. Remove the CD from the tray.
- 3. Press the eject button again or push gently on the front of the tray to shut the front panel.

Choosing CDs for Your CD-Writer

For best results, use Hewlett-Packard CD-RW (ReWritable) or CD-R (Recordable or write-once) media, available from your local vendor.

When to Use CD-RW

Ideas for using CD-RW (ReWritable) discs which can only be used in CD-ReWritable drives or newer MultiRead CD-ROMs:

- Use as if it were a large-capacity floppy disk
- Copy your important files each week
- Free up disk space on your hard drive
- Transport files to and from work/home
- Hold large complex files as you develop them

- Create personalized presentations
- E-mail storage

NOTE: MultiRead CD-ROMs may require a UDF reader to read CD-RW discs, depending on the application used to write them.

When to Use CD-RW

Ideas for using CD-R (Recordable or write-once) discs which can be read in most CD-ROM or CD-Recordable drives:

- Permanently save large project files
- Share non-editable presentations
- Permanently store home records
- Share memories with family and friends
- Copy your music onto CD for personal use
- Make copies of music you created for record company demos
- Permanently archive files

Purchase HP CD-RW (ReWritable) media (C4404A)

Available from your local vendor, these CDs can be recorded or read in CD-ReWritable drives and read in newer MultiRead CD-ROMs.

Purchase HP CD-R (Recordable or write-once) media (C4403A)

Available from your local vendor, these CDs can be read by most CD-ROM, CD-Recordable, and CD-ReWritable drives (use this type of media if you want to listen to your music CDs in a stereo).

CD Care and Other Tips

- Protect recording surfaces from scratches, fingerprints, and dirt.
- Hold CDs by the outer edge or by the center hole.
- You can clean a CD with a soft, dry cloth. Commercial CD cleaner or ethyl alcohol can also be used
- Write by hand only on the "white" premarked label side using an oil based felt tip marker. Do not use a ballpoint pen.
- Do not leave a CD in direct sunlight or in a hot, humid location.

2-4 Maintenance

- If you ever lose power to the computer or have to press CTRL-ALT-DEL while writing to a CD, do not open the CD tray. You may still be able to salvage your CD. For instructions on how to do this read the pertinent section on page 3-5.
- Do not mix audio and data files on the same CD, since they require different formats, unless you are creating Mixed Mode or CD-Extra CDs. For more information on Mixed Mode and CD-Extra CDs see the Easy-CD Creator online help.

Maintenance

The CD-Writer Plus drive requires no maintenance or cleaning. If you simply keep your CDs clean, you will prevent most problems.



CAUTION: DO NOT use the CD-ROM cleaning CDs that rely on a small brush to sweep dirt off the laser. DO NOT use high-pressure air to clean the inside of the drive. These cleaning techniques will damage the CD-Writer Plus drive.

Identifying CD-Writer Plus's Drive Letter

Not sure which drive letter was assigned to the CD-Writer Plus drive?

The CD-Writer Plus drive will have a drive icon just like a CD-ROM drive icon. You can determine which icon is your CD-ROM drive and which icon is your CD-Writer Plus drive by double-clicking on the **My Computer** icon, right-clicking on the **CD drive** icon, and selecting **Eject**. The tray of the selected drive will open.

Chapter 3: **Problem Solving**

Read this section if you run into trouble with your CD-Writer Plus drive. If after reviewing the section you need further assistance, call the phone numbers listed in "Appendix B: Customer Support".

Gather the information on page B-1 before calling for assistance. *Having this information ready will greatly facilitate your call.*

Things to Try First

These are some basic steps to take when you run into trouble. If the problem persists, see the "Common Symptoms and Solutions" section.

- Does your computer meet the minimum system requirements (see Minimum System Requirements on page A-1)?
- Make sure the computer is plugged in and that each device has power.
- Turn off the computer's power, wait 20 seconds, then turn it on again.
- Try the operation with a different CD.
- Make sure that you are using the right type of CD (See "Choosing CDs for Your CD-Writer" on page 2-2.)
- Check the Readme file that came with the CD-Writer Plus drive.
- Check the free online information resources listed on page B-5.
- If your computer has a power-management feature, disable it (see the manual that came with your computer).

Common Symptoms

- Now your computer won't boot up! (see page 1-35)
- Not sure which drive letter was assigned to the CD-Writer Plus? (see page 1-36)
- The CD-Writer Plus drive doesn't show up in My Computer or Explorer. (see page 1-36)
- The device that is sharing the IDE data cable with my CD-Writer Plus drive doesn't show up in Explorer or doesn't work any more. (see page 1-36)
- The computer is trying to boot up from the CD-Writer Plus drive or receiving "Invalid Media" error message. (see page 3-3)
- Copying directly from one CD to another doesn't work. (see page 3-3)
- Audio sounds poor. (see page 3-3)
- Video is choppy. (see page 3-4)
- Applications cannot locate the CD in the CD-Writer Plus drive. (see page 3-4)
- Unable to see the CD label or all the sessions/files on the CD in Windows Explorer. (see page 3-5)
- Lost power to the computer or had to press CTRL-ALT-DEL while writing to the CD! (see page 3-5)
- Buffer underrun error messages. (see page 3-6)
- Hard Drive compression software. (see page 3-6)
- Achieving optimal performance. (see page 3-6)
- Known compatibility problems. (see page 3-7)
- Checking for resource conflicts. (see page 3-7)

Solutions to Some Common Symptoms

The computer is trying to boot up from the CD-Writer Plus drive or receiving "Invalid Media" error message.

- If the computer is trying to boot up the operating system from the CD-Writer Plus drive, simply remove the CD from the drive tray when starting up your computer.
- If you do not want your computer to boot from the CD-Writer Plus drive, you need to change the "boot order" settings in your CMOS program. To learn how, see the documentation that came with your computer or call the computer manufacturer.

Copying directly from one CD to another doesn't work.



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- Some CD-ROMs will not allow direct copying to the CD-Writer Plus drive or are not capable of digital audio extraction.
- You must have either a SCSI 2 CD-ROM drive (see the drive's guide for information) or a supported ATAPI CD-ROM drive to use as your source.
- Some CDs have a copy prevention feature or other features that do not allow a CD-to-CD copy.

Audio sounds poor.

- Make sure the audio cable is completely plugged into the sound card and into the CD-Writer Plus drive.
- Make sure that you do not have a sound-muting feature turned on through the monitor or in software.
- Check the sound from the CD-Writer Plus drive by plugging earphones or speakers to the audio connector on the *front* of the CD-Writer Plus drive. If the sound quality is good, the problem is probably with the sound board, speakers, or audio cable. See the documentation that came with your sound board and speakers for help. If you are not already doing so, try using the audio cable that came with the CD-Writer Plus drive.

■ If you copied wave files from the hard drive to a CD, try listening to the wave files on your hard drive to see if they sounded poor before copying them to CD. (You can use the Media Player program found under Multimedia in Windows' Accessories.)

Video is choppy.

This can result from the same situations that cause buffer underruns (explained on page 3-6) or can happen if your video card is slow. Try the following:

- Try the solutions for buffer underruns (page 3-6).
- Reduce the size of the video window and close any other programs that are running.
- If the previous suggestions don't work you may want to consider upgrading your video card.

Unable to see a second session reading from a CD-ROM drive.

- Eject the CD and reinsert it.
- Refresh the screen. To do this select the My Computer icon in Windows Explorer and press F5.
- CD-RW (ReWritable) discs can only be used in CD-ReWritable drives or newer MultiRead CD-ROMs.
- If you are trying to read your CD from Windows 3.x: Multi-session CDs created with Direct CD cannot be read in DOS or Windows 3.x. If your multi-session CD was created using some other program, verify that you are using version 2.23 of the MSCDEX.EXE file. First, restart your computer and when you see "Starting MS-DOS..." appear on your monitor, press F8. Each line in your CONFIG.SYS and AUTOEXEC.BAT file will load one at a time. Press "Y" until you see a line containing "MSCDEX.EXE". Then press "Y" and the version number of your MSCDEX file will display. The number must be 2.23 or greater. Call Microsoft for an updated file if you need it.
- See if the CD-Writer Plus drive or other CD-ROM drives can read the CD. If so, the problem is probably with the CD-ROM drive. Contact the manufacturer of this drive for updated drivers.

Applications cannot locate the CD in the CD-Writer Plus drive.

Some programs (CD-ROM games, etc.) look only for the first logical drive letter assigned to a CD-ROM drive or CD-Writer Plus drive. For example, if your CD-ROM drive is assigned drive D:\ and the CD-Writer Plus drive

is assigned drive E:\, the program is looking for the CD only in drive D:\ and will not see the CD in drive E:\. If you want to use the CD-Writer Plus drive with these programs, reassign the drive letters, making the CD-Writer Plus drive come before the CD-ROM drive, as follows:

- In Windows 95, click on **Start/Settings/Control Panel** and double-click on the **System** icon. Display the Device Manager and double-click on **CDROM**. Double-click on the CD-ROM drive, and then click on the **Settings** tab. Under Reserved drive letters, select the drive letter *after* the existing letter (for both start and end drive letter) and click on **OK**. Then double-click on the CD-Writer Plus drive, and then click on the **Settings** tab. Under Reserved drive letters, select the drive letter *before* the current one and click on **OK**.
- In Windows NT, click on Start/Programs/Administrative
 Tools(common). Choose Disk Administrator. Right-click on the
 drive letter you wish to change. Select Assign Drive Letter. Change
 the drive letter.

Unable to see the CD label or all the sessions/files on the CD in Windows Explorer.

Refresh the screen. To do this select the **My Computer** icon in Windows Explorer and press **F5**.

Lost power to the computer or had to press CTRL-ALT-DEL while writing to the CD!

If you lose power while writing to your CD (the CD-Writer Plus drive's red light is on) OR if you exit an application or press CTRL-ALT-DEL while writing to CD...

You may be able to salvage your CD, but ONLY if you:

- 1. LEAVE YOUR CD IN THE DRIVE, DO NOT OPEN THE CD TRAY
- 2. Turn your machine off
- 3. Turn it back on
- 4. Then re-enter the application you were using

Once the application tries to access the CD-Writer Plus drive, the recovery operation will make it appear that the last session is there. However, in reality, only a part of the CD's directory may be there. Your recordable CD is still usable if you can read the directory. Repeat the entire copy operation to make sure that your files are copied to the recordable or ReWritable CD.

Hard Drive compression software.

We do not recommend using hard drive compression software. If you use hard drive compression software, it estimates free hard drive space based upon a compression ratio (often user selectable). Programs may check your hard drive for space needed and may think you have the necessary free space. However, depending on the type of files you are copying, you may in fact not have enough hard drive space.

Achieving optimal performance.

Run SCANDISK.EXE and DEFRAG.EXE on your hard drive before using your CD-Writer Plus drive for the first time (see your Windows manual for more information). Then run them periodically after that. These programs improve access times to the hard drive, which will help improve system performance while writing to and reading from the CD-Writer Plus drive.

Buffer underrun error messages.

CD recordable devices require an uninterrupted data stream from the hard drive in order to write successfully to a CD. A buffer underrun message appears when for some reason the data stream is interrupted. This can occur, for example, if another application interrupts the writing process, or if the CD-Writer Plus drive's write speed is set too high for the speed at which the hard drive can accesses and transfer data.

When using Easy-CD Creator or Disc Copier:

- Make sure you use the Test option in the software to ensure that the write speed is appropriate for your computer. For more information see the application's online help.
- Make sure your system meets the minimum system requirements, see Minimum System Requirements on page A-1.
- Buffer underrun may be caused by hard drive compression software (see page 3-6).
- NEVER write to the recordable CD while other applications are running that could interrupt the writing-to-CD process. Log off any networks, disable any fax modem, email, screen saver, or other programs (such as TSRs, terminate-and-stay-resident programs) that may automatically send messages to your computer while writing data to the CD. If the interruption is long enough, you could ruin a write-once CD to which you are writing.
- Exit *any* other programs before writing data to the CD.

- If your computer has a power-management feature, disable it (see the manual that came with your computer).
- Run SCANDISK.EXE and DEFRAG.EXE periodically on your hard drive (see your Windows manual for more information). These programs improve access times to the hard drive, which will help improve system performance while writing to and reading from the CD-Writer Plus drive.
- A small number of older hard drives are designed with a built-in interrupt loop that may cause a buffer underrun. If you are unable to resolve buffer underruns by any other means, contact your hard drive manufacturer to find out if this is the case for your hard drive.

Known compatibility problems.

- Check the Readme file that came with the CD-Writer Plus drive for additional information.
- Check the web site listed on page B-5 for the most recent information.

Checking for resource conflicts.

In rare cases, your computer's IDE controller may be having a resource conflict where another device is trying to use the IDE controller's I/O base address or interrupt request channel (IRQ). To check for this type of conflict:

- In Windows 95, right-click on the My Computer icon, select Properties, select the Device Manager tab, and double-click on CD-ROM, if the list is not already expanded. A yellow exclamation mark over the controller's icon confirms that the controller has the same or conflicting settings as another device installed on your system. Resolve this conflict by assigning a unique IRQ and I/O base address to the other device.
- In Windows NT, if this type of conflict is present, you will see an error message when you start up Windows NT. Follow the directions in the error message box.

Chapter 4: **Sharing Your CDs**

How you write your data to CD and the type of CDs that you use will determine who else can read the data from your discs. This chapter briefly explains some of the options you have in creating CDs that can be shared with others using different computer and CD setups.

Varying Formats

CD technology has progressed rapidly over the last few years from CD-ROM to writable CD, and on to the technology you now own in your rewritable CD-Writer Plus. One of the results of these developments is that data can be written in several formats and on different types of CDs.

Sharing CDs across Different Formats

Using CD-RW Discs

When should I use CD-RW discs?

CD-RW media is the ideal solution if you need more storage space on your computer. Your CD-Writer Plus drive, coupled with CD-RW media, can function as an extension of your hard drive. You can write, erase, and rewrite data easily from applications and from the Windows Explorer. Use CD-RW media:

- To save work in progress like presentations, documents, etc.
- Make weekly archives of files on your hard drive.
- Shuttle files between the office and home if you have a CD-Writer Plus at each location, or have an external CD-Writer Plus to use on both computers.

Can I share a CD-RW disc?

Yes. You can share a CD-RW disc directly with someone owning another CD-RW drive or with someone that has a MultiRead CD-ROM drive and UDF reader software. MultiRead CD-ROM drives are a recent innovation to CD-ROM technology, so while not all CD-ROMs are MultiRead, they are available to users world wide.

How do I know if a CD-ROM is MultiRead?

Look for the MultiRead certification logo on the CD-ROM's packaging or users guide. The drive will be described as MultiRead certified or will list CD-RW as supported media. You can also put a CD-RW disc in your CD-ROM and see if it can read it.

What if I want to share with users that have standard CD-ROM drives? (In Windows 95, Windows 98, and Windows NT 4.0)

In general, you must copy your information to a CD-R disc to share it with users that have standard CD-ROM drives. To accomplish this:

- 1. Insert your CD-RW disc in your CD-Writer Plus drive.
- Copy all the information from the CD-RW disc to a unique location on your hard drive.
- 3. Replace the CD-RW disc in your CD-Writer Plus with a blank CD-R disc.
- Copy the information from your hard drive to the CD-R media using DirectCD.
- 5. When you eject the disc, DirectCD prompts you to either leave the disc as it is, or organize the disc so it can be read in most standard CD-ROM drives. Select the option to organize the CD so it can be read in most standard CD-ROM drives.

NOTE: For additional information on sharing CDs with Windows 3.x and DOS users, see "CD-R discs created with DirectCD." on page 4-3.

Can I play an audio disc I made on a CD-RW disc in my car or home CD player?

Probably not. Most car and home CD players are not capable of reading information off of CD-RW media. You must record your audio on CD-R discs to play them on most conventional CD players. There are however some newly released auto and home CD players that can read the CD-RW media.

Using CD-R Discs

When should I use CD-R discs?

The data you put on a CD-R can't be erased. Use CD-R discs:

- When you want to protect your data so that it cannot be erased
- If you want to share your CD with users that have standard CD-ROM drives
- For audio CDs

Can I automatically share a CD-R with anyone?

Not necessarily. The software application you use will determine with whom you can easily share the CD.

CD-R discs created with DirectCD.

Use DirectCD when you want to create data CDs to use on your own computer. For instructions on how to use DirectCD go to "Making Data CDs to Use on Your Own Computer" on page 5-1.

When you eject the disc from the drive, DirectCD will prompt you to either leave the disc as it is so you can add more data later, or organize it so it can be read in most standard CD-ROM drives under Windows 95 or Windows NT 4.0 Service Pack 3. If you intend to share the disc with other users, then you must select the option to organize it so it can be read in most standard CD-ROMs.

- Windows 95, Windows 98, and Windows NT 4.0. Your CD-R organized to be read in most standard CD-ROMs is now ready to be shared with Windows 95, Windows 98, and Windows NT 4.0 users.
 - There may be some CD-ROMs that can't read the CD-R. If you have problems try turning off the "Read Ahead" on your CD-ROM. Refer to your operating system documentation on how to do this. Another option is to use CD Copier to create a disc copy of your original CD-R disc. A description of how to do this can be found in the section "Making a Copy of a CD" on page 8-3.
- Windows 3.x and DOS. Your CD-R organized to be read in most standard CD-ROMs under Windows 95 and Windows NT cannot automatically be read in Windows 3.x or DOS. Some additional steps are required if you want to share this disc with Windows 3.x or DOS users. You will need to create a copy of your original CD-R disc on another piece of CD-R media using the CD Copier application. This

will write a disc in the proper format for Windows 3.x and DOS users. Follow the instructions given in the section "Making a Copy of a CD" on page 8-3 to accomplish this task.

NOTE: CDs created with CD Copier will display long filenames when viewed in Windows 95, 98, and NT. When viewed in Windows 3.x and DOS, file names are shortened to the DOS standard of eight characters with a three-character extension. Files and executables that expect a specific file name may not function as anticipated in Windows 3.x and DOS.

CD-R discs created with Easy-CD Creator (Audio).

This application automatically writes the audio format understood by millions of car and home CD players in existence today. You will be able to share this disc with virtually any user.

CD-R discs created with Easy-CD Creator (Data).

Use Easy-CD Creator (Data) when you want to create data CDs you can share with other users, for example if you want to send the CD to your co-workers. For instructions on how to use Easy-CD Creator (Data) go to "Making Data CDs to Use on Different Types of Computers" on page 5-6

Easy-CD Creator is called a mastering application since, when used with CD-R media, it is capable of directly writing discs using a format that can be read by virtually all CD-ROM drives and operating systems (Windows 95, Windows NT, Windows 3.x, and DOS).

Interchange Summary

The following table is a brief summary of which CD drives can read discs created with certain application/media combinations.

Application used to make a CD	Type of CD used	Drives that can read the CD
DirectCD	CD-RW	MultiRead CD-ROM with UDF reader Windows 95, 98, and NT 4.0
	CD-R (closed)	*Most CD-ROMs Windows 95, 98, and NT 4.0
CD Copier	CD-RW	MultiRead CD-ROM
	CD-R	Any CD-ROM

Application used to make a CD	Type of CD used	Drives that can read the CD
Easy-CD Creator (Audio)	CD-RW	MultiRead CD-ROM
	CD-R	Any CD-ROM, home or car CD player
Easy-CD Creator (Data)	CD-RW	MultiRead CD-ROM
	CD-R	Any CD-ROM

 $^{^{*}}$ Your CD-ROM drive must be capable of reading packet-written CDs. Most CD-ROM drives are packet tolerant. If you have problems, check your drive's documentation or consult the drive's manufacturer.

Chapter 5: Making Data CD:

Chapter 5: **Making Data CDs**

You can make data CDs with DirectCD $^{\text{TM}}$ and with Easy CD Creator $^{\text{TM}}$. You can copy data to both CD-Recordable (CD-R) and CD-ReWritable (CD-RW) discs. DirectCD and Easy CD Creator make data CDs in a slightly different way for different purposes. The correct program is launched automatically when you decide what kind of data CD you want to make.

- If you want to make a data CD to use on your own computer, follow the instructions in "Making Data CDs to Use on Your Own Computer" below.
- If you want to make a data CD to use on your own computer or on different types of computers (for example, computers running under DOS or Windows 3.x) that do not have DirectCD, follow the instructions in "Making Data CDs to Use on Different Types of Computers" on page 5-6.

Making Data CDs to Use on Your Own Computer

DirectCD enables you to write files directly to a CD-Recordable (CD-R) or CD-ReWritable (CD-RW) disc, in much the same way you would write them to a floppy diskette or a removable media drive. This is especially handy for making data discs to use with your own computer. For example, you might want to

- Archive data and then remove it from your hard drive
- Back up the files on your hard drive

 Transfer a large number of files from the computer you use at work to the computer you use at home

NOTE: Other people may be able to read data discs you create with DirectCD on their computers if their CD-related hardware and software is set up the same as it is on your computer. However, it is more likely that your data discs will be usable on other computers if you create them with Easy CD Creator, as described in "Making Data CDs to Use on Different Types of Computers" on page 5-6.

DirectCD lets you read and write files directly to your CD with any software application that can read from and write to a drive letter. Some examples include:

- Software applications such as Microsoft Word, when you use the Save or Save As commands
- Windows Explorer, when you drag and drop files
- Windows 95[®]/NT, when you use the Send To command
- MS-DOS, when you use command prompts from within Windows 95/NT

DirectCD provides a file system based on UDF v1.5 specifications and writes data to the CD-R or CD-RW disc using packet-writing technology. This technology, together with the file system, gives you drive letter access to your CD-Writer Plus. A DirectCD wizard guides you step-by-step through the process of preparing and ejecting CD-R and CD-RW discs.

Preparing a Data CD

Follow these steps to start DirectCD and prepare a *blank* CD-R or CD-RW disc for reading and writing data. (If you want to write more data to a disc that you *already* formatted in DirectCD, see "Writing More Data to a DirectCD Disc" on page 5-5.)

- 1. Start up your computer.
- 2. Insert a blank CD-R or CD-RW disc in the CD-Writer Plus. After a few seconds a screen will appear which asks you to "Please select the type of CD you wish to create." (If the DirectCD Disc Ready window appears, the disc has already been prepared, and you can start writing data to it.)

NOTE: If no screen appears after about 15 seconds, the disc may not be blank, or it may have an unreadable format. (See "Fixing an Unreadable Disc" on page 5-6 for more information.) Or the "Auto insert notification" option may be disabled (this applies to Windows 95 only). To check this, click **Start**, move the mouse pointer over Settings, and click **Control Panel**. In Control Panel, double-click **System** and select the **Device Manager** tab. Double-click the CD-Writer Plus icon, then select the **Settings** tab. Click **Auto insert notification** if it does not have a check mark next to it, and click **OK**. Click OK on the System Properties dialog box. Then close the Control Panel.

- 3. Select the first option: Click here to create a data CD that will be accessible through a drive letter, i.e. as you would use a floppy drive. The Format Disc screen appears. If you are formatting a CD-R disc, continue with the next step. If you are formatting a CD-RW disc, skip to step #5.
- 4. If you are formatting a CD-R disc, click **Next** on the Format Disc screen and skip to step #6.
- 5. If you are formatting a CD-RW disc, you can choose between two formatting options. To do this, click the **Advanced** button that appears on the Format Disc screen. When the next screen appears, select either **Fast Format** or **Full Format** and click **OK**.

We recommend that you select **HP fast format**, which lets you start writing to the CD-RW disc almost immediately while the disc is formatted in the background. A **Full Format** requires you to wait about an hour until the formatting is complete before you can write to the disc. Click the **Help** button for more information about the formatting options.

NOTE: Data is safe if you write it to the disc while HP fast format takes place in the background. HP fast format will NOT overwrite this data, because the data is written to sections of the disc that have already been formatted.

6. When the Name Your Disc screen appears, type a name for the disc and click **Finish**. Disc formatting begins.

When the DirectCD Disc Ready window appears, the formatting is complete.

NOTE: Formatted CD-RW discs have about 530 MB of available space, while formatted CD-R discs can store up to 618 MB of data.

7. Click OK.

The DirectCD disc is ready for you to write data to it.

Writing Data to a DirectCD Disc

Once your CD is formatted as a DirectCD disc, you can write data to it in several different ways:

- Drag and drop files from Windows Explorer onto the CD-Writer Plusicon
- Select **Save As** from a Windows 95/NT application File menu and select the drive letter of your CD-Writer Plus.
- Use the Send To command.
- Use MS-DOS command prompts from a DOS window in Windows 95/NT.

Ejecting a DirectCD Disc

DirectCD gives you various formatting options when you eject a DirectCD disc from the CD-Writer Plus. The options depend on what kind of disc DirectCD detects in the drive and how you want to use the disc. To eject a DirectCD disc, follow these steps:

1. Push the eject button on the front of the CD-Writer Plus, or

Right-click on the CD icon on the taskbar and select **Eject** from the drop-down list box.

The Eject Disc screen appears.

- 2. Carefully read the text that appears on the screen and, if options are presented, select the option you want.
- 3. Click Finish to eject the disc from the CD-Writer Plus.

NOTE: If you are using a CD-RW disc, see "Chapter 4: Sharing Your CDs" for more information about making CDs readable on different types of computers.

Writing More Data to a DirectCD Disc

If you previously formatted a blank disc for DirectCD use, you can add more data to the disc until it is full. To do so, follow these steps:

- 1. Insert the DirectCD disc into your CD-Writer Plus.
- Wait for the DirectCD Disc Ready window to appear. (If the Make Disc Writable screen appears, simply follow the on-screen directions to make the disc writable.)
- 3. Click **OK** and continue writing more data to the disc.

Erasing a DirectCD Disc

If you are using CD-RW discs in your CD-Writer Plus, you can actually erase files from the disc and use the recovered space to write new files. However, if you "delete" files from a *CD-R* disc, the files become invisible to the file system (such as Windows Explorer) but the space they occupy is not made available for other files. Thus, "deleting" files from a CD-R disc *will not* increase the available free space on the disc.

To erase the contents on a DirectCD disc, follow these steps:

- 1. While in Windows Explorer, select the file(s) you want to erase.
- 2. Select **Delete** from the File menu.
- 3. Click **Yes** to confirm that you want to erase the files from the disc.

DirectCD erases the selected file(s) from the disc.

Fixing an Unreadable Disc

If no window appears on the screen after about 15 seconds when you insert a disc in the CD-Writer Plus, the disc may have an unreadable format. DirectCD has a ScanDisc application that may be able to recover data on the disc and allow you to write to it and read from it again. Follow these steps to use ScanDisc:

- 1. Double-click the CD icon on the right side of the Windows taskbar. If the disc is unreadable, the ScanDisc window will appear.
- 2. Read the text in the window, then click the **ScanDisc** button.
- 3. Wait while ScanDisc repairs the disc. A message will appear on the screen when ScanDisc is finished.

NOTE: You can also start ScanDisc through the Start menu. To do this, click **Start** on the Windows taskbar. Move the mouse pointer over Programs, HP CD-Writer Plus. Tools and Information, and Utilities. Then select ScanDisc.

Making Data CDs to Use on Different Types of Computers

Adaptec Easy CD Creator enables you to write files directly to a CD-Recordable (CD-R) or CD-ReWritable* (CD-RW) disc in a format that can be read by different types of computers. This is handy if, for example, you want to create a CD for someone who has a computer running under DOS or Windows 3.x.

Follow these steps to start Easy CD Creator and copy data files to a blank CD-R or CD-RW disc:

- Start up your computer.
- Insert a blank CD-R or CD-RW disc in the CD-Writer Plus. After a few seconds a screen will appear which asks you to "Please select the type of CD you wish to create."

 $^{^{*}}$ CD-RW discs can only be read in a MultiRead CD-ROM drive or in another CD-RW drive.

NOTE: If the screen does not appear after about 15 seconds, you may have inserted a disc that is already formatted. Remove the disc and insert a blank disc. Or the "Auto insert notification" option may be disabled (this applies to Windows 95 only). To check this, click **Start**, move the mouse pointer over Settings, and click **Control Panel**. In Control Panel, double-click **System** and select the **Device Manager** tab. Double-click the icon for the CD-Writer Plus, then select the **Settings** tab. Click **Auto insert notification** if it does not have a check mark next to it, and click **OK**. Click OK on the System Properties dialog box. Then close the Control Panel.

- Select the second option: Click here to create a data CD for distribution among different types of computers. The Easy CD Creator Wizard appears.
- 4. Leave the **Data CD** radio button selected, and click **Next**.
- 5. When the next screen appears, select the files and folders you want to copy to the disc and click Add Now. The graph bar in the lower part of the screen indicates how much space is left on the disc.
- 6. When you are done adding files, click **Next**. The **Test Before Writing** window appears.
- Click Next, then click Finish on the Ready to Create CD window to create the CD. The testing and copying process may take a long time if you are copying many folders and files.
- 8. When the testing and copying process is completed, eject the CD from the drive.

NOTE: These instructions describe the simplest, most direct way to create a data disc with Easy CD Creator. Other options are also available, such as rearranging the folder/file structure after you have selected the files to copy to the CD. See the Easy CD Creator online help for more information.

Getting Help

For setup and connection problems with your CD-Writer Plus, refer to the Troubleshooting section of the user's guide.

For information about Easy CD Creator and DirectCD, refer to the appropriate topics in the online Help. To access the online Help, select **Help Topics** from the Help menu of either program.

Technical information, including product literature, answers to commonly asked questions, information on software upgrades and other topics is available electronically through the following:

- Adaptec World Wide Web (WWW) site at http://www.adaptec.com.
- The Adaptec Software Products Group can be found on several CD-ROM, CD-R, and CD publishing newsgroups and lists on the Internet.

For customer support information, refer to Appendix B, "Customer Support."

Chapter 6: **Making Music CDs**

A music CD is a compact disc (CD) containing digital audio tracks recorded in the Compact Disc-Digital Audio (CD-DA) format.

Music CDs can store up to 74 minutes of music and may contain up to 99 tracks, each usually representing a separate piece of music. Music CDs can be played back from a home or car CD player or from a CD-ROM drive through speakers or headphones attached to the drive's output jack.

You can use Easy CD Creator to:

- Compile audio CDs of your favorite music
- Make CDs from Wave (.wav) files on your hard drive

Starting Easy CD Creator

- 1. Start up your computer.
- 2. Insert a *blank* CD-R or CD-RW disc in the CD-Writer Plus. After a few seconds a screen will appear which asks you to "Please select the type of CD you wish to create."

NOTE: If no screen appears after about 15 seconds, you may have inserted a disc that is already formatted. Remove the disc and insert a blank disc. Or the "Auto insert notification" option may be disabled (this applies to Windows 95 only). To check this, click **Start**, move the mouse pointer over Settings, and click **Control Panel**. In Control Panel, double-click **System** and select the **Device Manager** tab. Double-click the icon for the CD-Writer Plus, then select the **Settings** tab. Click **Auto insert notification** if it does not have a check mark next to it, and click **OK**. Click **OK** on the System Properties dialog box. Then close the Control Panel.

 Select the third option: Click here to create an audio CD that will be playable in any CD player. The Adaptec Easy CD Creator Wizard window appears.

Making a Music CD

You can make a music CD by recording songs from:

- Tracks on an existing CD
- Wave files stored on your hard drive (*.wav is a standard Windows format for sound files.)
- A combination of Wave files and tracks

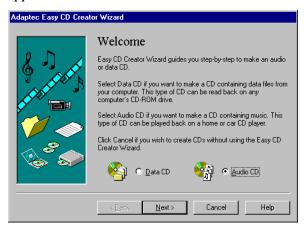
This section explains how you can make a simple music CD with the Easy CD Creator Wizard. It also explains how to do other tasks like recording audio tracks from an existing music CD and recording Wave files stored on your hard drive.

NOTE: Easy CD Creator is designed to assist you in reproducing material in which you own the copyright or have obtained permission to copy from the copyright owner. Unless you own the copyright or have permission to copy from the copyright owner, you may be violating copyright law and be subject to payment of damages and other remedies. If you are uncertain about your rights, contact your legal advisor.

Using the Wizard

The easiest way to make a music CD is to use the Easy CD Creator Wizard, which appears when you first start Easy CD Creator. The Wizard guides you step-by-step in making a simple music CD. Follow these steps to make a music CD with the Wizard:

1. Start Easy CD Creator if it is not already running (see "Starting Easy CD Creator" on page 6-1.) The Adaptec Easy CD Creator Wizard appears, as shown here:



2. Follow the on-screen instructions in the Wizard windows.

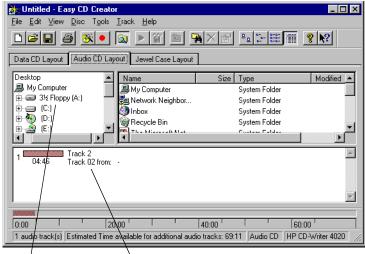
As you add tracks to write to the CD, a list of these tracks will appear in the main Easy CD Creator window at the bottom of the screen. A final message box notifies you when the recording is complete.

Recording Audio Tracks from an Existing Music CD

To record songs (audio tracks) from an existing music CD, you need to first create a *CD layout*— a file that contains the list of songs and the order in which they will be recorded—then record the layout to a blank CD. To do so, follow these steps:

1. Start Easy CD Creator, if it is not already running.

- Select New CD Layout from the File menu or open an existing CD layout.
- 3. Click the Audio CD Layout tab:



Windows Explorer Audio CD Layout Window

The top part of the window is Windows Explorer, where you can select the songs you want to record. The bottom part is the Audio CD Layout window, which allows you to view the contents of the CD layout. To make changes to the list of tracks in the Audio CD Layout tab, see "Changing the Order of Your Songs" on page 6-8.

Insert the source CD, which contains the songs you want to record, in your CD-Writer Plus.

NOTE: You can record directly from a CD-ROM drive only if it supports digital audio extraction. See "Recording from a CD-ROM Drive" in the Easy CD Creator Online Help.

- 5. In the Windows Explorer section of the window, select the drive where the source CD is located to view the list of songs on the original CD.
- Drag the songs that you want to record from Windows Explorer to the Audio CD Layout window.

To change the name of a song, see "Renaming Songs in Your CD Layout" on page 6-8.

- 7. Repeat steps 4, 5, and 6 for each existing music CD from which you want to record songs.
- 8. Select **Create CD** from the File menu when you have placed all of the songs that you want to record into the Audio CD Layout window.

The CD Creation Setup box appears.

 Make changes, if any, to the CD Creation Setup settings (see "CD Creation Setup Settings" in the Easy CD Creator Online Help for descriptions) and click OK.

Easy CD Creator needs a blank CD before it can begin recording your CD layout. Insert a blank CD when prompted. A final message box notifies you when the recording is complete.

NOTE: To make a jewel case insert that lists the artist, CD title, and songs, see "Chapter 7: Making Inserts and Labels".

Recording Wave Files Stored on Your Hard Drive

To record a music CD using Wave files (*.wav), the Wave files must be stored on your hard drive at 11, 22, 44.1 KHz, 8- or 16-bit, mono or stereo. To make a Wave file from an existing CD, see "Pre-recording Audio Tracks to Wave Files" on page 6-6.

NOTE: For best results, record your .wav files at 44.1 KHz, 16-bit stereo. For more information, see the documentation for your Wave editor program.

To record Wave files stored on your hard drive to a blank CD, follow these steps:

- 1. Insert a blank CD in your CD-Writer Plus.
- 2. Select New CD Layout from the File menu, or open an existing layout.
- 3. Click the **Audio CD Layout** tab.
- 4. Select the Wave files you want to record from Explorer and drag them to the Audio CD Layout window.
- 5. To change the name of the song(s), see "Renaming Songs in Your CD Layout" on page 6-8.

- Select Create CD from the File menu when you have finished adding all of the songs you want to record to your CD layout. The CD Creation Setup box appears.
- Make changes, if any, to the CD Creation Setup settings (see "CD Creation Setup Settings" in the Easy CD Creator Online Help for descriptions) and click OK.

Easy CD Creator will begin recording your CD layout to the blank CD. An on-screen message notifies you when the recording is complete.

NOTE: To make a jewel case insert that lists the artist, CD title, and songs, see "Chapter 7: Making Inserts and Labels."

Pre-recording Audio Tracks to Wave Files

Pre-recording audio tracks to Wave files on your hard drive is a way to:

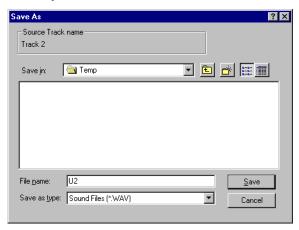
- Minimize swapping CDs in and out of your drive if you want to make more than one copy, or if you have only a CD-Writer Plus drive
- Add sound effects to customize any song on the CD (using a third-party sound editor)
- Improve the sound quality if your CD recording system is less than optimal

You can pre-record one Wave file at a time. To pre-record a Wave file from an existing CD, follow these steps:

- 1. Insert the source CD, which contains the song you want to pre-record to your hard drive, into your CD-Writer Plus.
- 2. Click the Audio CD Layout tab in Easy CD Creator.
- 3. Select the audio track you want to pre-record from Explorer and drag it into the Audio CD Layout window.
- 4. Highlight the audio track in the Audio CD Layout window.
- 5. Select **Pre-record to WAV file** from the Track menu.

NOTE: Pre-recording audio tracks to Wave files requires approximately 10MB of space on your hard drive for one minute of music.

Type in a file name for the Wave file and choose a different location on your hard drive if you do not want to record your Wave file to your Temp directory.



7. Click Save.

Easy CD Creator pre-records your Wave file to your hard drive. An onscreen message notifies you when the recording is complete.

Combining Both Audio Tracks and Wave Files

You can make a music CD that contains songs both from pre-recorded Wave files stored on your hard drive and from audio tracks on an existing music CD. To do so, follow the steps outlined in "Recording Audio Tracks from an Existing Music CD" on page 6-3 and "Recording Wave Files Stored on Your Hard Drive" on page 6-5, depending on the type of songs you want to record. When you have added all of the audio tracks and Wave files you want to record to your CD layout, select **Create CD** from the File menu.

Modifying Your CD Layout

The following sections describe how to make changes to your CD layout.

Changing the Order of Your Songs

Once you have added more than one song to your CD layout, you can change the order of the songs at any time before creating the CD.

To change the order of the songs, follow these steps:

- 1. Select the song whose order you want to change in the CD layout.
- Drag the song to the position where you want it to appear in the Audio CD Layout window.

Removing Songs from Your CD Layout

You can remove any song you have added to a CD layout at any time before you create a CD. To remove a song from your CD layout, follow these steps:

- 1. Select the song you want to remove in the Audio CD Layout window.
- 2. Select Cut from the Edit menu.

Renaming Songs in Your CD Layout

To rename a song listed in your CD Layout, follow these steps:

- 1. Select the song you want to rename in the Audio CD Layout window.
- 2. Select **Rename** in the Track menu.
- 3. Type the new name in the text box.

Saving a CD Layout

You can create a CD layout, save it, then use it to record a CD later. To save a CD layout, follow these steps:

- 1. Select Save As from the File menu.
- 2. Type in the File name.
- 3. Select the location where you want to store the file.

Opening an Existing CD Layout

To open a CD layout you have previously saved:

■ Select **Open CD Layout** from the File menu.

Easy CD Creator displays the contents of the layout.

Playing Music CDs

Use the Windows CD Player to listen to music CDs. To do this, follow these steps:

- 1. Insert the music CD in your computer's CD-ROM drive.
- 2. Click the **Start** button on the Windows taskbar, then move the mouse pointer over Programs, Accessories, and Multimedia.
- 3. Select **CD Player**. The CD Player window appears.
- 4. Click the start button to start playing the music CD.

Getting Help

For setup and connection problems with your CD-Writer Plus, refer to the Troubleshooting section of the user's guide.

For information about Easy CD Creator, refer to the appropriate topics in the online Help. To access the Easy CD Creator online Help, select **Help Topics** from the Help menu.

Technical information, including product literature, answers to commonly asked questions, information on software upgrades and other topics is available electronically through the following:

- Adaptec World Wide Web (WWW) site at http://www.adaptec.com.
- The Adaptec Software Products Group can be found on several CD-ROM, CD-R, and CD publishing newsgroups and lists on the Internet.

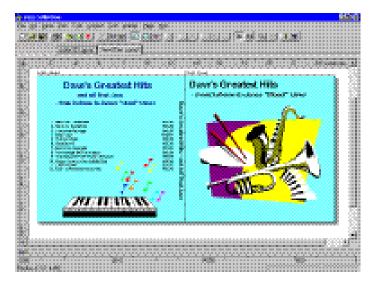
For customer support information, refer to Appendix B, "Customer Support."

Chapter 7:

Making Inserts and Labels

A jewel case insert is a cover you can print and insert in the CD's *jewel case*—the plastic case that holds the CD—to display the title and contents of your CD.

The cover is printed on one side of a sheet of paper and then folded. One side lists the files or tracks; the other side shows the title and may also contain graphics.



Easy CD Creator allows you to customize your own jewel case insert. Once you have edited the jewel case insert, you can preview it, print it, cut it to size, and insert it in the case. You can also design and print a label for the top of the CD. You can print the label on a standard printer if you use special paper designed for disc labels.

How to Make a Jewel Case Insert or a Label

When you make a music CD, Easy CD Creator uses the CD layout information to create a basic jewel case insert, including the CD title, artist name, and list of songs. You can then click the Jewel Case Layout tab to modify and customize that information, such as changing font styles and adding graphics.

Creating custom jewel case inserts involves three basic tasks:

- Editing inserts
- Adding text and graphics
- Printing

Creating CD labels involves the second and third steps; Easy CD Creator does not automatically create any text for the label. The following sections explain how to view and edit jewel case inserts and CD labels, add text and graphics, and print the inserts and labels.

Editing Inserts and Labels

The following sections describe the different ways you can view and edit jewel case inserts and labels before printing them.

Viewing Inserts and Labels

To view the different parts (pages) of the jewel case insert or CD label, follow these steps:

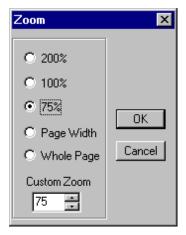
- 1. Click the **Jewel Case Layout** tab in Easy CD Creator.
- 2. From the Page menu, select the item you want to view:
 - Jewel Front—to view the Inside Jacket and Front Cover
 - **Jewel Back**—to view the Back Cover
 - **Disc Printer**—to view the Compact Disc label

Easy CD Creator displays the view.

Zooming

To view a section of an insert page or label in greater detail, you can magnify the view. To change the magnification of the page, follow these steps:

1. Select **Zoom** from the Page menu.



- 2. Select the zoom level you want to apply.
- 3. Click OK.

Easy CD Creator changes the magnification level.

Using Rulers and Grids

You can use rulers and grids to position text and graphics on the jewel case insert or the label. See "Setting Insert Layout Options" in the Easy CD Creator online Help for more information on how to do this.

Using Rulers

Rulers are displayed along the perimeter of the Jewel Case Layout window and help you to measure the insert or label and its objects.

To display or hide the rulers, do the following:

- Select the **Ruler** option from the View menu to view rulers.
- Deselect the **Ruler** option from the View menu to hide rulers.

Using Grids

Grids help you to more precisely position objects with respect to other objects on the insert or label.

To snap objects to a grid—meaning the objects are automatically moved to the grid line—do the following:

- 1. Select **Grid** from the Layout menu.
- 2. Select **Snap to Grid** from the Layout menu.

The objects snap to the nearest grid marker when you move them around on the page.

To display or hide the grids, do the following:

- Select the **Grid** option from the Layout menu to view grids.
- Deselect the **Grid** option from the Layout menu to hide grids.

Positioning Inserts

You can position the insert or CD label at any location on the physical

page. For an approximate position, use the box of the two rulers.

To position the insert or label, follow these steps:

 Drag the box at the intersection of the ruler to the position on the page where you want the upper left corner of the insert or label to be located.

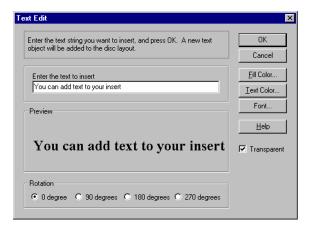
For more precise control over the position of the insert or label, use the Origin settings in the preferences. See "Setting Insert Layout Options" in the Easy CD Creator online Help.

Adding Text

You can add as much text as you like to the jewel case insert or CD label. When you add text, you can define some attributes, such as font style, color, and background fill color.

To add text, follow these steps:

1. Select **Insert Text** from the Edit menu.



- 2. Type the text in the Text box.
- Select the text attributes you want by clicking the Fill Color, Text Color, or Font buttons:

Attribute	Description
Fill Color	Select the color you want surrounding the text. NOTE: When text is marked Transparent—meaning that you can see the background behind the text—you cannot define a fill color.
Text Color	Select the color of the text.
Font	Select the font, style, and size of the text.

4. Click OK.

The text is added where the cursor is located on the Jewel Case Layout window.

Editing Text Objects

To change the attributes of any text object, follow these steps:

- 1. Double-click the text object you want to edit.
- Select the text attributes you want to change. (See "Adding Text" on page 7-5.)
- 3. Click OK.

Adding Graphics

The graphics used in Easy CD Creator are called *OLE objects*. OLE is a Windows feature that maintains associations with objects across different applications. For example, if you add an OLE object to a jewel case insert or CD label, you can double-click the object to open the associated application so you can edit the object.

To create and insert an OLE object, follow these steps:

- Select Insert and New Object from the Edit menu. A list of Object Types appears.
- 2. Select the Create New option to the left of the Object Types list.

Select **Create From File** instead if you want to import an *existing* graphics file—for example, a piece of computer "clip art."

- Select from the Object Type list the application you will use to create the graphic. For example, select **Bitmap Image** if you want to create a graphic with Windows Paintbrush.
- 4. Click OK.
- 5. Create (or select) the graphic. The way in which you do this depends on which application you selected. For example:

If you select **Bitmap Image** a small window will appear in the middle of the Jewel Case Layout window. Create the bitmap image in this window, using the Windows Paintbrush tools that appear on the screen. When you are finished, click outside the small window to "paste" the image into the jewel case insert or CD label.

If you select **Microsoft Clipart Gallery**, you will see a window with small images of the available graphics. Select the graphic you want and click **Insert**.

6. Move or resize the graphic, as required.

NOTE: See the "Adding Graphics" topic in Easy CD Creator online Help for information on editing and moving objects.

Arranging Track Titles

Information about tracks listed in the Audio CD Layout is automatically added to the Jewel Case Layout window. If you delete tracks while making an audio CD, the associated information is automatically updated in the Jewel Case Layout tab.

Deleting tracks while preparing to make an audio CD may cause blank rows to appear in the tracks list of the Jewel Case Layout tab. Therefore, if you make changes to the track list that affect the position of the tracks on the Jewel Case Layout window, Easy CD Creator asks if you want the tracks automatically repositioned.

The Jewel Case Layout tab provides some commands that let you create columns of track information, display the length and number of each track, and automatically position tracks on the layout.

The following sections describe different ways you can arrange the tracks in the Jewel Case Layout.

Creating Track Column Lists

You can arrange the track information boxes:

- Randomly by dragging them to new positions in the Jewel Case Layout window, or
- In a linear list with one or two columns.

To create a track list:

■ Select **One Column** or **Two Column** from the Text menu.

Displaying Track Numbers and Duration Times

Easy CD Creator includes the track number and duration time for each audio track. The track number indicates the order in which the audio tracks are recorded. The duration time is shown in minutes and seconds.

To display the track numbers:

■ Select **Display Track Number** from the Text menu.

To display track duration times:

Select Display Track Time from the Text menu.

Fitting Tracks on a Page

Fitting tracks means all the track information is centered on each page and aligned along the first character of each track.

You can move track titles from the inside jacket and the back cover to the front cover. However, Best Fit will move tracks back to their original location.

To fit the tracks on the page as described above:

Select Best Fit from the Arrange menu.

Printing Jewel Case Inserts and CD Labels

You can print a jewel case insert or a CD label while the Jewel Case Layout tab is open. The commands and options available for printing depend on the type of printer connected to your computer. For information about these options, see your printer's guide.

To print a jewel case insert or a disc label, follow these steps:

- 1. Select **Print** from the File menu.
- 2. Click OK.

To preview an insert or label before printing it:

- 1. Select **Print Preview** from the File menu.
- 2. Click OK.

Getting Help

For setup and connection problems with your CD-Writer Plus, refer to the Troubleshooting section of the user's guide.

For information about Easy CD Creator, refer to the appropriate topics in the online Help. To access the Easy CD Creator online Help, select **Help Topics** from the Help menu.

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For customer support information, refer to Appendix B, "Customer Support."

Chapter 8: **Copying CDs**

CD Copier is a convenient tool for making copies of your CDs. The most common reason for making a copy of a CD is to create a working copy of a CD and archive the original in a safe place.

NOTE: CD Copier is designed to assist you in reproducing material in which you own the copyright or have obtained permission to copy from the copyright owner. Unless you own the copyright or have permission to copy from the copyright owner, you may be violating copyright law and be subject to payment of damages and other remedies. If you are uncertain about your rights, contact your legal advisor.

What Types of CDs Can I Copy?

You can use CD Copier to make backup copies of almost any type of CD. The following table lists the types of CDs that can be copied and includes some notes about making backup copies:

Type of CD	Notes
Audio or CD Extra	If you are using a drive other than a CD-Writer Plus, you need a source CD-ROM drive capable of reading audio digitally. Not all drives support digital audio extraction. See "Testing Your System Configuration" in the CD Copier online help. (CD Copier tests your drive to determine its capabilities when the source CD is inserted.)
	NOTE: CD Copier supports copying CDs in Track-at-Once mode. This means that there will be two seconds of silence between tracks.

Type of CD	Notes
Data CD	Some CD-ROM drives may not be able to read a DirectCD data disc. If you have a true MultiRead CD-ROM drive, there should be no problems.
Mixed-Mode	Mixed results. Some CDs copy perfectly; others do not, possibly because the CD is formatted to circumvent copying or because some CDs do not follow the standard specifications.
Photo CD	Requires a source CD-ROM drive that can read CD-ROM XA. Most current drives support this.
Video CD	Requires a source CD-ROM drive that can read CD-ROM XA. Most current drives support this.

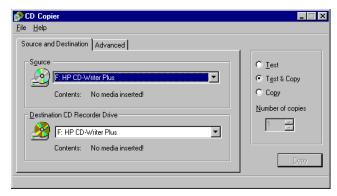
Starting CD Copier

Follow these steps to start CD Copier:

- 1. Start up your computer.
- 2. Insert a *blank* CD-R or CD-RW disc in the CD-Writer Plus. After a few seconds a screen will appear which asks you to "Please select the type of CD you wish to create."

NOTE: If no screen appears after about 15 seconds, you may have inserted a disc that is already formatted. Remove the disc and insert a blank disc. Or the "Auto insert notification" option may be disabled (this applies to Windows 95 only). To check this, click **Start**, move the mouse pointer over Settings, and click **Control Panel**. In Control Panel, double-click **System** and select the **Device Manager** tab. Double-click the icon for the CD-Writer Plus, then select the **Settings** tab. Click **Auto insert notification** if it does not have a check mark next to it, and click **OK**. Click **OK** on the System Properties dialog box. Then close the Control Panel.

Select Click here to create a duplicate of an existing audio CD or data CD. The CD Copier Source and Destination tab appears.



NOTE: You can also start CD Copier by clicking the Windows **Start** button (located on the left side of the taskbar), selecting **Programs**, pointing to HP CD-Writer Plus, and selecting **Copy CDs**.

Making a Copy of a CD

To make a backup copy of a CD, follow these steps:

- Select the source drive from which you want to copy the CD. This can be your CD-R, CD-RW, or CD-ROM drive. See "Source CD-ROM Drives for CD-to-CD Copying" in the CD Copier online Help if you are going to copy directly from a CD-ROM drive.
- Select the destination drive that contains the blank CD. This is your CD-Writer Plus.
- 3. Make changes, if any, in the Advanced tab settings. See "CD Copier Advanced Tab Settings" on page 8-4.
- 4. Select one of the following options:
 - **Test**—Select this option to perform a test in which the files to be recorded are passed to the CD recorder. No information is recorded to the CD. Use this option if you have made any changes to your CD recorder setup.

- **Test & Copy**—Select this option to perform a test in which the files to be recorded are passed to the CD recorder. Recording begins after a successful test.
- Copy—Select this option when you do not want to perform the test. Use this option if you have successfully recorded a number of similar CDs and you have not made any changes to your CD recorder setup.
- 5. Select the number of copies you want to make.
- 6. Click **Copy** to begin recording a copy of your CD.
- 7. Follow the on-screen instructions and insert a blank CD when prompted (if you did not already insert one earlier).

CD Copier begins copying the files and folders from your source to a blank CD. A final message box notifies you when the copying is complete.

CD Copier Advanced Tab Settings

Setting	Description
Current CD Recorder Speed	Select the speed at which you want to create the backup copy of the CD. For greater certainty, record at 1x.
Disc Copy	Select this option to copy the source CD to your hard drive first to speed up the recording process if you are making more than one copy of a CD. Once the source has been copied to your hard drive, CD Copier records the disc copy to the CD.
Select Location	To make a disc copy, type in a different location to store the image file if you do not want to use the Temp directory.

Chapter 8: Copying CDs

Getting Help

For setup and connection problems with your CD-Writer Plus, refer to the Troubleshooting section of the user's guide.

For information about CD Copier, refer to the appropriate topics in the online Help. To access the CD Copier online Help, select **Help Topics** from the Help menu.

Technical information, including product literature, answers to commonly asked questions, information on software upgrades and other topics is available electronically through the following:

- Adaptec World Wide Web (WWW) site at http://www.adaptec.com.
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For customer support information, refer to Appendix B, "Customer Support."

Chapter 9: **HP Simple Trax**

Use Simple Trax to index the contents of your CDs. Locate stored files without inserting a single CD.

Welcome to HP Simple Trax

HP Simple Trax protects your data by copying files and folders to a CD and saving information about them in the Simple Trax information vault on your hard drive. This makes it easy for you to find and retrieve any protected version of a file you need.

HP Simple Trax is designed to work just the way your Windows Explorer works. You can drag and drop items or use the menus. You can also click on items with the right mouse button to use the popup menus. Use your favorite method or try a new one.

The installation program will place the HP Simple Trax icon on the desktop and under My Computer. When you open or explore the Simple Trax icon, instead of folders, you see icons representing all the CDs you have used to protect your files with HP Simple Trax. You can see which files and folders are in each CD without putting a CD in your CD-Writer. Retrieving one or more files or folders from a CD is a snap — just treat the Simple Trax folder as a regular CD drive and copy the files using HP Simple Trax's handy popup menus. HP Simple Trax asks you for the correct CD(s) as needed to retrieve the selected files.

You don't have to log or track what is stored on your CDs, HP Simple Trax does it for you automatically. You can create a list of important files or folders that you want to protect regularly and even schedule protection to take place automatically when you are not using your computer. It's that easy to protect all your important information!

With HP Simple Trax, your important files are secure and easy to retrieve. You can even retrieve older versions of files, allowing you to undo major revisions or changes. HP Simple Trax also helps you find the file(s) you want to retrieve, including specific versions of a file, with its search option.

HP Simple Trax is installed along with your other CD-Writer Plus software. No special installation or configuration is necessary. All you need to do before using HP Simple Trax is to prepare a CD for writing with your CD-Writer Plus. The method to prepare a CD can be found in "Making Data CDs to Use on Your Own Computer" on page 5-1.

This chapter shows you how to:

- Protect files and folders on CD
- Create a Protection List
- Schedule a protection session to run automatically
- Retrieve protected files and folders
- Search the HP Simple Trax information vault
- Reconstruct the HP Simple Trax information vault
- Import a CD into HP Simple Trax
- Use the HP Simple Trax Control Panel

For more complete information on any topic see the on-line help.

Protecting Files and Folders Immediately

To protect files and folders immediately:

- Place the CD you want to use to protect information into your CD-Writer Plus.
- Run Explorer by clicking the Start button, pointing to Programs, and clicking Windows Explorer.
- 3. Click the file or folder you want to protect with the right mouse button. A popup menu appears.

To select multiple files or folders within a single folder, press and hold the CTRL key while clicking the desired items with the left mouse button. Then release the CTRL key and click with the right mouse button. Point to HP Simple Trax and click Protect... from the HP Simple Trax menu.



The View Versions option only appears if you have selected a single file.

HP Simple Trax copies the selected file(s) and folder(s) to the CD in your CD-Writer Plus and places information about the protected files into its information vault.

If the CD you placed in your CD-Writer Plus has not been used with HP Simple Trax before, the program prompts you to type a name to identify the CD. This name is used only in the HP Simple Trax information vault. Be sure to write the same name on the CD label.

NOTE: When you use Direct CD to write to your CD-Writer Plus directly, as described in chapter 5, HP Simple Trax does not save any information about this operation in its information vault. For HP Simple Trax to save information about the files you are protecting you must use the HP Simple Trax popup menus as described above, drag and drop to the HP Simple Trax icon, or copy and paste on the HP Simple Trax icon.

Creating a Protection List

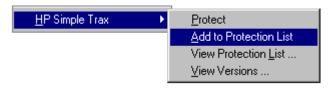
The HP Simple Trax Protection List contains all files and folders you have designated for protection. You can then schedule a protection session to copy all items in the Protection List to a CD at once. This is a much more efficient method of protecting your important information because it copies all designated files and folders in one operation, saving you time and effort.

To add files and folders to the Protection List:

 Run Explorer by clicking the Start button, pointing to Programs, and clicking Windows Explorer. 2. Click the file or folder you want to protect with the right mouse button. A popup menu appears.

To select multiple files or folders within a single folder, press and hold the CTRL key while clicking the desired items with the left mouse button. Then release the CTRL key and click with the right mouse button.

Point to HP Simple Trax and click Add to Protection List from the HP Simple Trax menu.



The View Versions option only appears if you have selected a single file.

HP Simple Trax places the selected file(s) and folder(s) in the Protection List.

4. Repeat steps 2 and 3 for any other files or folders that you want to add to the Protection List.

To protect the files and folders in the Protection List, use the HP Simple Trax Control Panel Schedule Setup tab. See the next section or the HP Simple Trax Control Panel section later in this chapter for more information.

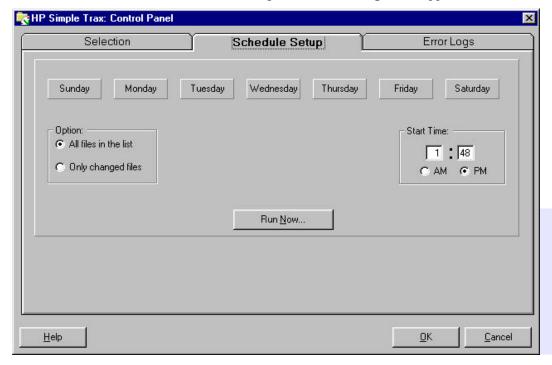
Scheduling a Protection Session to Run Automatically

HP Simple Trax allows you to schedule a protection session to run at a specified time on selected days. Scheduled sessions automatically protect all files and folders in the Protection List so you don't have to remember to do so. You can even schedule a protection session to run in the middle of the night or any other time your computer is on but not in use.

For a scheduled protection session to run unattended you will need to have a CD that already has a name for use in HP Simple Trax. If it is the first time you use the CD in HP Simple Trax the software will prompt you to type a name to identify the CD when the session begins.

To schedule a protection session:

- Double-click the HP Simple Trax Control Panel shortcut on your desktop or click the Start button and point to Programs, then to HP CD-Writer Plus, then to HP Simple Trax, and select Control Panel from the HP Simple Trax menu.
- 2. Click the **Schedule Setup** tab. The following screen appears:



- 3. Use the row of buttons along the top of this tab to select the day(s) to perform a scheduled protection session. Click the desired day button(s).
- 4. Set the time you want the scheduled protection session to start on the selected day(s).
- 5. Select the desired protection option:

- All files in the list: Protects every item in your Protection List, whether changed or not.
- Only changed files: Protects only those items in your Protection List that have changed since the last protection session.
- 6. Click **OK** to schedule the protection session.

Be sure to place the desired CD in your CD-Writer Plus before the scheduled protection session is set to begin. Since the first time you use a CD in HP Simple Trax the program prompts you to type a name to identify the CD, make sure you have already used the CD in HP Simple Trax for the scheduled protection session to run unattended.

Leave your computer on so the scheduled protection session can run.

Click **Run Now** if you want to protect the items on your Protection List immediately. The protection session will still run as scheduled.

Retrieving Protected Files and Folders

Retrieving protected files and folders using HP Simple Trax is very quick and easy. You don't need to insert a CD into your CD-Writer Plus before the retrieval actually begins. HP Simple Trax shows you all the files and folders you have protected on all CDs and prompts you for the correct CD(s) during the retrieval process. Since HP Simple Trax automatically gives you the most recent version available of a file you may have to insert a CD you didn't expect to.

To retrieve protected files and folders:

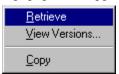
- Run Explorer by clicking the Start button, pointing to Programs, and clicking Windows Explorer.
- 2. Double-click the **Simple Trax** icon.

3. Double-click the CD label for the CD from which you want to retrieve files or folders. Open the folder containing the file(s) and folder(s) you want to retrieve.



If you do not know which CD contains the files or folders you want to retrieve, click the **Tools** menu, point to **Find**, and click **In Simple Trax...** to use HP Simple Trax Find feature.

4. Click the file or folder you want to retrieve with the right mouse button. A popup menu appears.



The View Versions option only appears when you right-click on a file.

To select multiple files or folders within a single folder, press and hold the CTRL key while clicking the desired items with the left mouse button. Then release the CTRL key and click with the right mouse button.

- 5. Click Retrieve from the popup menu.
- 6. Set the retrieve options:
 - Make sure Ask before overwriting files is checked to prevent retrieved files from overwriting existing files of the same names without HP Simple Trax prompting you to do so first.

- Make sure **Include subdirectories** is checked to retrieve all subdirectories in the selected folder. (This option is useful only if you have selected one or more folders.)
- Click Copy files to an alternate location and type the desired drive and path or click Browse and select the new location from the list of folders on your hard disk(s).

NOTE: If you choose to retrieve the selected files or folders to an alternate location, all of the retrieved files are removed from the original folders and subfolders and are placed in the alternate location. If you want to keep the directory information either drag and drop the items or use copy and paste.

- 7. Click **OK** to continue.
- Insert the correct CD if it is not already in your CD-Writer Plus. HP Simple Trax prompts you for the required CD.
- 9. Confirm that you want to replace existing files, if prompted to do so.

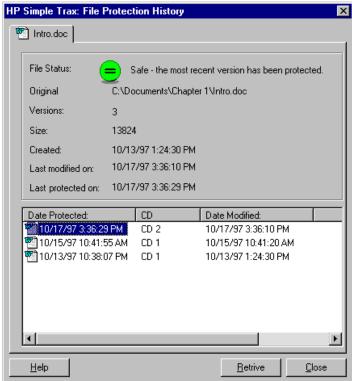
HP Simple Trax retrieves the most recent versions of files that you selected. In order to do this HP Simple Trax may prompt you for different CDs depending where the most recent version was copied.

TIP: If you are using multiple CDs disable the DirectCD banner.

You can also retrieve earlier versions of a file using the **View Versions** option. This option will bring up the **File Protection History** dialog box, which lists all the protected versions of the file. The most common reason for retrieving an older version of a file is to undo major revisions or changes.

To display the **File Protection History** dialog box run Explorer, click the file on your hard disk that you want to examine with the right mouse button, point to HP Simple Trax on the popup menu, and select **View Versions**. You can also double-click the HP Simple Trax icon, click the file you want to examine with the right mouse button, and select **View Versions**.





The **File Protection History** dialog box appears:

To retrieve an older version of a file, click the desired file version in the File Protection History dialog box and click the Retrieve button. Older versions of a file can only be retrieved one at a time.

Searching the HP Simple Trax Information Vault

HP Simple Trax helps you find protected files in the HP Simple Trax information vault so that you can see if a file has been protected, see when it was last protected, and retrieve it if desired.

To find protected files in the HP Simple Trax information vault:

- Run Explorer by clicking the Start button, pointing to Programs, and clicking Windows Explorer.
- 2. Double-click the **HP Simple Trax** icon.
- Click the Tools menu, point to Find, and click HP Simple Trax... to display the Find dialog box.



4. In the **Named** box, type all or part of the filename you want to find.

You can use a file filter to search for files or folders based on name patterns.

A file filter is a generalized description of a filename composed of a partial filename and one or more of the wildcard characters. The wildcard characters take the place of one or more letters or numbers to help you find a file whose name you do not know or specify a group of files with similar names. The wildcard characters are:

* = any number of characters

? = a single character

Examples:

- To find all files that end in .txt, type *.txt
- To find all files that end in .wp and one additional character, type *.wp?
- To find all files that begin with report and have any extension, type report.*
- 5. To limit the search to a specific CD, drive, or folder, click the desired CD, drive, or folder in the **Look in:** box.
- 6. Click **Find Now** to begin searching.

If you want to stop the search click **Stop**.

If you do not know the name of the file(s) or folder(s) you want to find, click the **Date** tab to search the information vault for items created, modified, or protected during a specified period of time.

Click a file with the right mouse button to retrieve it or view protected versions.

The HP Simple Trax Find menu provides additional options. Refer to the on-line Help for complete information.

Reconstructing the HP Simple Trax Information Vault

If for any reason the information that HP Simple Trax stores about files and folders you have protected is lost or damaged it can be reconstructed. To fully reconstruct the information you must import all of the CDs that you have used to protect files in HP Simple Trax.

Importing CDs into HP Simple Trax

When you import a CD, HP Simple Trax gathers information about the files on the CD and stores that information on your hard drive. This information makes it possible for you to easily find and retrieve files and to browse the contents of the CD without putting the CD in your CD-Writer Plus.

There are several cases in which you may want to import a CD:

- If for any reason the information HP Simple Trax stores on your hard drive is lost or damaged you can reconstruct that information by importing all Simple Trax CDs.
- If you want to start tracking files that you have previously copied to CDs without using HP Simple Trax.
- If you took a CD with files you are working on to another computer, modified them, and now want to update the information that Simple Trax stores about those files.

If you want to start tracking files on a CD created by someone else.

To import a CD into HP Simple Trax:

- Place the CD whose contents you want to import into your CD-Writer Plus.
- 2. Run Explorer by clicking the Start button, pointing to Programs, and clicking Windows Explorer.
- 3. Right-click the drive icon for your CD-Writer. A popup menu appears.



4. Point to HP Simple Trax and click Import from the HP Simple Trax menu.

The import process can take anywhere from a couple of minutes to over an hour. The duration of the operation depends mainly on the type of computer you have and the number of files on the CD.

If the CD you placed in your CD-Writer has not been used with HP Simple Trax before, the program prompts you to type a name to identify the CD. This name is used only in HP Simple Trax. Be sure to write the same name on the CD label.

HP Simple Trax Control Panel Overview

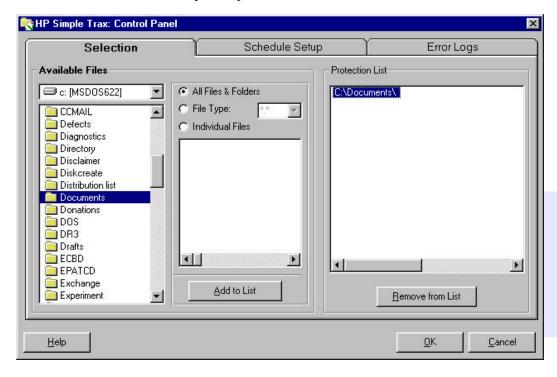
The HP Simple Trax Control Panel provides access to many HP Simple Trax options. The HP Simple Trax Control Panel has three notebook tabs that organize the available functions:

- **Selection:** The Selection tab gives you full control over the HP Simple Trax Protection List, allowing you to add and remove files and folders as needed to protect your valuable information.
- Schedule Setup: The Schedule Setup tab allows you to schedule automatic protection of all items in the Protection List.
- Error Logs: An error log is automatically created during every protection or retrieval session whether or not an error occurs. You may wish to consult the error log for additional information in the event that an error message appears during an operation.

To run the HP Simple Trax Control Panel, double-click the **HP Simple Trax Control Panel** shortcut on your desktop or click the **Start** button, point to **Programs**, then to **HP CD-Writer Plus**, then to **HP Simple Trax**, and click **Control Panel**.

Selection Tab

The Selection tab gives you full control over the HP Simple Trax Protection List, allowing you to add and remove files and folders as needed to protect your valuable information.



The HP Simple Trax Control Panel Selection tab is divided into two sections:

Available Files

 Drive List: Choose the drive you want to work with from this dropdown list.

- Folder List: Click the folder you want to open.
- File List: Displays the files in the selected folder that meet the criteria specified by the File Selection radio buttons.
- File Selection Radio Buttons: Control how files are displayed and selected for protection. There are three options:
- All Files & Folders: Selects all files and any subfolders in the current folder for protection. The contents of the current folder appear in the File List.
- 2. **File Type:** Specifies the type of files that are selected for protection and displayed in the File List. Type the desired file filter in the accompanying combo box or select a file filter you have used before from the drop-down list. Only filters of the form *.??? are allowed. Some examples of these filters are *.bmp, *.doc, and *.txt. The advantage of using a file type when creating a Protection List is that future files of that type are automatically included.
- 3. **Individual Files:** Allows you to choose the specific files to be protected from the File List. Click the desired file(s).
- Add to List Button: Adds the selected files to the Protection List.

Protection List

- **Protection List:** Contains all files and folders you have designated for protection. You can then schedule a protection session to copy all items in the Protection List to a CD at once.
- **Remove from List Button:** Click the items you want to remove from the Protection List and click this button.

Schedule Setup Tab

The Schedule Setup tab allows you to schedule automatic protection of all items in the Protection List.

The controls on this tab are contained in a single group:

- Day of the Week Buttons: Use this row of buttons to select the day(s) on which to perform a scheduled protection session. You can click as many days as desired. The selected day buttons remain pressed. To remove a day from the schedule, click the desired button.
- **Options:** These radio buttons set the protection options.

All files in the list: Protects every item in your Protection List, whether changed or not.

Only Changed files: Protects only those items in your Protection List that have changed since the last protection session.

- **Start Time:** Type the time at which the scheduled protection session is to begin. The Start Time is the same for all selected days.
- **Run Now... Button:** Click this button to protect all items in your Protection List immediately.

Error Logs Tab

An error log is automatically created during every protection or retrieval session whether or not an error occurs. You may wish to consult the error log for additional information in the event that an error message appears during an operation.

The controls on this tab are contained in a single group:

- **Error Log List:** This portion of the tab displays information about the error logs and allows you to select a specific error log so that you can get more information on any errors that occurred.
- **View Button:** Click the error log you want to open and click this button. Use this option to see the details of any errors that occurred. The information contained in the error log can help you solve the problem.
- Delete Button: Click the error log you want to delete and click Delete.



CAUTION: When you delete an error log, it cannot be restored.

- **Keep last** *x* **error log entries:** Click this radio button to set the number of error log entries HP Simple Trax is to keep. Type the number of error logs to keep or use the spin buttons to set the desired number. When this number is exceeded, the oldest error log is automatically deleted.
- **Keep all error log entries:** Click this radio button to keep all error log entries. You can then delete unwanted entries manually using the Delete button.

HP Simple Trax's seamless integration to Explorer makes protecting and retrieving your valuable information easy. Schedule protection sessions of your important documents so that they will always be available. Keep your hard drive from getting cluttered by versions of files you think you might want in the future by protecting them with HP Simple Trax.

Chapter 10: HP Disaster Recovery

Chapter 10: **HP Disaster Recovery**

HP Disaster Recovery is an application that will help you to recover your data and operating system after a hard drive failure. It is important that you create a Disaster Recovery Set as soon as possible. Should a disaster occur, the information in the Disaster Recovery Set will enable you to return your system to the state it was in before the hard drive failure.

Before recovering with HP Disaster Recovery, you should first decide if another recovery method is possible. For example, if the problem appears to be associated with the Windows operating system, such as a corrupt registry, try to recover by following the steps outlined in your Microsoft Windows User's Manual before attempting the following procedures.

Getting Started

The first step in securing the data on your system is creating the Disaster Recovery (DR) Set. The DR Set will contain the information necessary to recover your system. Throughout this chapter, we will refer to the disks, diskettes and discs that make up the Disaster Recovery Set. For more information on these terms, please see the "HP Disaster Recovery Glossary" on page 10-8.

The Disaster Recovery Wizard will guide you through the steps required to create the DR Set with easy-to-follow instructions for protecting your valuable data. Once the DR Set has been created, it will allow you to recover your system should your hard drive fail, even if your Windows operating system will not start.

When you install HP Disaster Recovery, the program and its folder are added to the Windows Start Menu.

What you will need

To create the Disaster Recovery Set, you will need the following items:

For Windows 95 and Windows 98

- One or more blank, formatted 1.44MB diskettes*
- Windows 95/98 installation CD
- One or more blank HP CD-R/CD-RW discs*

For Windows NT

- Four (4) blank, formatted 1.44MB diskettes
- Windows NT installation CD
- One or more blank HP CD-R/CD-RW discs*

*The number of diskettes and CD-R/CD-RW discs required will depend on the amount of data on your system. For more information on these requirements, see "HP Disaster Recovery Glossary" on page 10-8.

Creating the Disaster Recovery Set

To create your Disaster Recovery Set:

1. Click Start, Programs, HP CD-Writer Plus, HP Disaster Recovery, Disaster Recovery.

HP Disaster Recovery Wizard appears.

Follow the instructions on the Wizard screens to create your Disaster Recovery Set.

It is recommended that you label your diskettes and discs when prompted in the Wizards, and store them in a safe place. A new Disaster Recovery Set should be created when new hardware or software has been added to your system, or if many changes have been made to your files since the last DR Set was created.

Testing your Disaster Recovery Set

NOTE: This section applies to Windows 95 and Windows 98 only.

After you have created the Disaster Recovery Set, you will be asked if you would like to test the DR Set. Testing the DR Set is very similar to performing an actual recovery; however, be sure to stop before recovering your data. This test is to verify that your drive is responding properly.

To test your Disaster Recovery Set:

1. Follow steps 1 through 7 for recovering your data in the Data Recovery section. See "Recovering Your Data" on page 10-4.



WARNING: Do not continue to step 8 when testing the DR Set. By pressing **Enter**, as directed in step 8, you would be recovering the data from the diskette which would overwrite the data on that drive. Press **Esc** to cancel, or remove the diskette and restart your computer.

2. If you do not receive the messages listed in the steps for data recovery, follow the directions for creating another Disaster Recovery Set. See "Creating the Disaster Recovery Set" on page 10-2.

Recovering Your Data

If you are certain that you have lost your data due to a major system problem, such as a hard drive failure, it will be necessary to recover your data by using the most recent Disaster Recovery Set. Please note that the process for recovering data in Windows NT differs from that for Windows 95 and Windows 98.

What you will need

To recover the data on your system, you will need the following items:

For Windows 95/98 and Windows NT

- HP Disaster Recovery Set
- HP CD-Writer Plus drive

Data Recovery

For Windows 95 and Windows 98

If necessary, you can prepare your hard disk using the following tools which are located on the Disaster Recovery Diskette:

- FDISK—Re-partitions your hard disk
- FORMAT—Formats one or more partitioned drives
- SYS—Installs the system boot files onto the hard disk

NOTE: For instructions on the use of these utilities, please refer to your operating system user manual or contact your operating system's manufacturer.

To recover your data:

1. Replace any lost hard drives with comparable drives.

NOTE: In order to recover all of your information, HP Disaster Recovery must have at least as much hard disk space as existed before the drive failure.

2. Insert the Windows Startup Disk (diskette #1 of the DR Set) into your machine's 3.5" boot floppy drive and restart your computer.

A DOS screen appears.

3. At the prompt, type A:\README then press Enter.

The README.TXT appears.

- 4. After reading the text, press Alt+F, then press X to exit the editor.
- 5. If a Windows Startup Diskette #2 was created (not all systems require the creation of a second diskette), insert that diskette into your machine's 3.5" boot floppy drive.
- 6. At the prompt, type A:\RECOVER and press Enter. Your system files will be copied from the diskette to your hard drive.

The following message should appear:

```
Please insert Disaster Recovery Disc #1 into your HP CD-Writer Plus.
```

7. Insert DR Disc #1 into your HP CD-Writer Plus, then press Enter.

NOTE: If your Disaster Recovery Set consists of more than one disc, you will be prompted to insert each of the discs in the order they were created.

The following message should appear:

Select the volume that you wish to recover.

```
Drive C: [Volume C Name]
Drive D: [Volume D Name]
```

NOTE: If you have only one drive, it will be automatically selected for recovery and this screen will not be displayed.



WARNING: For Windows 95 or Windows 98—If you are <u>testing</u> the Disaster Recovery Set, the test is complete. Do not continue past this step. Please remove the Windows Startup Disk from your floppy drive and restart your computer. If you are <u>recovering</u> your data, continue to step 8.

8. Select the volume that you wish to recover by highlighting the volume using the Up and Down arrow keys, then pressing Enter.

You will then be asked to confirm your selections before recovering your information.

9. Press Enter to confirm your selections.

NOTE: If Disaster Recovery Disc #1 is not in your HP CD-Writer Plus, you will be prompted to insert it at this time.

Disaster Recovery will begin recovering the Windows File System.

10. Once the volume has been recovered, a summary of the process will be displayed. To exit this screen, press Enter. If there is more than one volume to be recovered, you may select it at this time.

After recovering the volume(s), you may wish to view the REPORT.TXT file which contains a text summary of the files that could not be recovered. If you wish to view this file, you must first exit the program by pressing the Esc key twice, then typing EDIT REPORT.TXT. After reading the text, press Alt+F, then press X to exit the editor.

Your recovery is complete. Remove any diskettes and discs from your machine and restart your computer.

NOTE: It may be necessary to restart your computer more than once if any hardware in your system has changed since your DR Set was created.

For Windows NT

A minimal install of the Windows NT Workstation will be performed from the Disaster Recovery Set.

HP Disaster Recovery screens will display messages instructing you when to insert each of the four diskettes from your Disaster Recovery Set.

To recover your data:

 Insert the Windows NT Workstation Setup Boot Disk (diskette #1 of the DR Set) and restart your computer. You will be guided through a partial NT installation.

Only the boot drive and the NT installation drive need to be partitioned at this time. You will be able to partition and format other drives at a later time through the Disk Administrator in the HP Disaster Recovery process.

2. Restart your computer when prompted.

The DR Wizard should appear now and guide you through the steps necessary to recover your system.

NOTE: If setup determines that your primary partition is not set up (i.e. if your C drive is not partitioned or formatted), then you will be prompted to do so. You should attempt to partition any new drive(s) to the same settings as were set before the drive failure.

HP Disaster Recovery Glossary

This glossary contains common computer terms used in this chapter, and terms that relate specifically to HP Disaster Recovery.

BIOS An acronym for Basic Input Output System, a low-level operating system

that runs below Windows and DOS.

blank HP CD-R HP manufactured CD-R (compact disc recordable) that has no data

written to it.

blank HP CD-RW HP manufactured CD-RW (compact disc re-writable) that contains no

data, or contains data which can be overwritten.

disc HP manufactured CD-R (compact disc recordable) or CD-RW (compact

disc re-writable).

diskettes/disk The floppy disks required to create the Disaster Recovery Set. Must have

the following attributes:

3.5"

1.44MB

blank/formatted (no data)

DR set Disaster Recovery Set consisting of the diskettes and discs which contain

the information necessary to recover your data in the event of a hard

drive failure.

Windows 95/98 users will require:

Up to two (2) blank, formatted 1.44MB diskettes

Windows 95/98 installation CD

One or more blank HP CD-R/CD-RW discs

Windows NT users will require:

Four (4) blank, formatted 1.44MB diskettes

Windows NT installation CD

One or more blank HP CD-R/CD-RW discs

An acronym for Disk Operating System, a simple operating system that

resides on your Windows 95/98 Startup Disk.

DOS

dual boot system A system that has two OS (operating systems). For example, Windows 95

and Windows NT.

hard disk A storage-media disk fixed permanently within a drive unit and used for

storing computer data.

partition A logical section of your hard disk. One physical hard disk may be

partitioned into two or more logical hard drives.

Appendix A: **Technical Information**

Minimum System Requirements

Your computer should meet or exceed these requirements:

- IBM or compatible computer with Pentium/100 Mhz processor or above
- Microsoft[®] Windows 95[®], Windows 98[®], or Windows NT[®] 4.0

NOTE: For Windows NT, Service Pack 3 is required.

- 16 MB RAM
- Hard drive with at least 528 MB storage capacity (with a transfer rate of at least 800 kB/sec and disk access time of less than 20 msec)
- 35 MB free hard drive space for installing the software described in this User's Guide.110 MB free hard drive space if your package included other software
 - 10 MB free hard drive space for each minute of music to be recorded
- An available space on an IDE controller (ATA-2 or EIDE)
- One available half-height drive bay (approximately 6" wide, 1.75" high, 8.5" deep /15 cm x 4.5 cm, 21.6 cm deep)
- A CD-ROM drive to install the application software.

If your computer does not have a CD-ROM drive:

You can create an Install Assistant diskette on another computer with a CD-ROM. The Install Assistant program will provide you with an Install Recommendation for your system.

To copy the Install Assistant program to a diskette, insert "Software Disc 1" into the CD-ROM drive. From the main menu, click **Before You Install**, then click **Make Diskette**.

Insert the diskette you just made, into your computer's floppy drive and run A:\ASSIST.

You can also order the Install Assistant diskette kit (part number C4392-60020) by calling:

(U.S.) 970-635-1500.

(Europe) Your country's support number is listed under "Telephone" on page B-6.

If you know the configuration of devices attached to your IDE controllers and understand how to connect your drive you do not require an Install Assistant diskette in order to install the software.

What Affects System Performance

How well your computer functions with the CD-Writer Plus drive, particularly how fast it writes data to a CD, depends on a number of factors. Some of these factors are listed below.

Processor (CPU). The type and speed of your processor greatly affects the speed at which your computer transfers data to and from the CD-Writer Plus drive. If the processor speed is too slow, you may have to write at 1x speed.

RAM. Your computer must have enough memory available to handle its operating system, the CD-Writer Plus applications, and the data you are transferring to and from CDs. The system should not have to swap data to and from the hard drive.

Your Hard Drive. The speed at which your hard drive accesses and transfers data (its access time and transfer rate) affects performance. Newer hard drives, those with a storage capacity greater than 528 MB, are fast enough to handle the CD-Writer Plus drive's 2x write speed.

IDE Interface Type: CD-Writer Plus should be connected to the primary or secondary IDE controller.

For optimal performance, run SCANDISK.EXE and DEFRAG.EXE on your hard drive before using your CD-Writer Plus drive for the first time (see your Windows manual for more information). Then run them periodically after that. These programs improve access times to the hard drive, which will help improve system performance while writing to and reading from the CD-Writer Plus drive.

NOTE: Refer to your computer and mother board manuals or contact your computer vendor if you have any questions about your computer's configuration or capabilities.

Drive Specifications

ISO 9660 Disc Data Capacity (74 Minute CD)

Number of sessions	Size required for header information	Size available for data/ per session
1	approximately 23 MB*	627 MB one session
5	approximately 79 MB (approx. 23 for the first, 14 MB each of the rest)	114 MB each session
10	approximately 149 MB (approx. 23 for the first, 14 MB each of the rest)	50 MB each session
30	approximately 430 MB (approx. 23 for the first, 14 MB each of the rest)	7.4 MB each session

^{*1} MB is defined as 10^6 bytes

UDF 1.5 Disc Data Capacity (74 Minute CD)

530 MB for CD-RW

618 MB for CD-R

Performance

Buffer size: 991 KB to 975 KB (depending on writing mode)

Average access time (1/3 stroke): < 150 ms

Data transfer rate (recording):

150 KB/s sustained (1x speed)

300 KB/s sustained (2x speed)

600 KB/s sustained (4x speed on CD-R media)

Data transfer rate (reading):

150 KB/s (1x speed, CLV mode)

300 KB/s (2x speed, CLV mode)

600 KB/s (6x speed, CLV mode) 1200 KB/s (8x speed, CLV mode) 1500 KB/s to 3600 KB/s (10x to 24 x speed, CAV mode)

Error rate: < 1 frame/10¹² bits

Audio distortion: < 0.1%

Discs supported

120 mm and 80 mm CD-R (write-once) media

120 mm CD-RW (ReWritable) media

For a description of which CD drives can read discs created with certain application/media combinations see the interchange summary on page 4-4.

Interface

Electrical interface:

IDE / ATA-2 MMC compliant

Loading mechanism: tray

Logical recording format (depending on application used):

ISO 9660 UDF 1.5 CD-DA

Dimensions

(5 1/4-inch form factor)

Height: 41.4 mm (1.63 in.) Width: 146 mm (5.75 in.)

Depth: 203 mm (7.99 in.) Recommended drive bay depth: 8.5 in.

Weight (net): 1 kg (2.2 lbs.)

Environmental

Temperature

operating: 5° to 35° C nonoperating: -25° to 55° C

Humidity (no condensation allowed)

operating: 10% to 80% RH nonoperating: 5% to 95% RH

Shock and vibration

HP Corporate Environmental Test Class B1

Power requirements

Typical usage: 10.7 W Maximum usage: 12.4 W

Sleep mode < 1 W

Appendix B:

Customer Support

Before You Call HP

If your own troubleshooting efforts fail, contact Customer Support. Make sure you are at your system and have your drive installed when you call. Phone numbers begin on page B-5. Before you contact them, have the information below ready. For help finding this information, see page B-2. If you receive an error message, write it down before you call.

Information	For your computer
CD-Writer Plus drive model	
Drive firmware version	
Drive serial number	
Computer brand and model	
Operating system and version?	Windows 95, Windows 98, or Windows NT 4.0 Version Number: (for NT) Service Pack Number:
Amount of RAM installed	
Other CD-ROM drives? yes/no (If yes, list them)	
Sound card? yes/no	Туре:

Information	For your computer
IDE controller settings	Primary / Secondary / Other IRQ I/O base address Master in use? Slave in use?
Other IDE devices in your computer system? yes/no (If yes, list them)	
IDE adapter board brand/model, if any	

Where to Find This Information

CD-Writer Plus drive model

The CD-Writer Plus drive model number appears on a small sticker on the underneath side of the tray of the CD-Writer Plus drive, as well as on the box. *Example: 8100i (internal)*

Drive firmware version

In Windows 95, the drive firmware version and model number (above) appear in the CD-ROM settings. Right-click on the **My Computer** icon, select **Properties**, select the **Device Manager** tab, double-click on **CDROM**. Double-click on the CD-Writer Plus drive, and then click on the **Settings** tab. Example: Firmware revision 1.00

In Windows NT, the drive firmware version and model number (above) appears in the CD-ROM settings. Open the Control Panel. Click on **SCSI**. Scroll down the list, double-click on **ATAPI**. Double-click on the **CD-Writer Plus drive**, and then click on the **Settings** tab. *Example: Firmware revision 1.00*

Drive serial number

The CD-Writer Plus drive serial number appears on the main label on the top of the drive. See page 1-7 or page 1-24. It also appears on the underside of the CD tray.

Computer brand and model

The computer brand appears on the front of your computer and in the documentation that came with your computer. *Example: Dell Dimension XP-90.*

Operating system and amount of RAM installed

In Windows 95, from the **Start** menu on the task bar, select **Settings/ Control Panel**. Double-click on **System**. Select the **General** tab. Write down the version number and the amount of memory installed; *for example: 4.00.950 and 16 MB RAM*.

In Windows NT (while signed on as Administrator), from the **Start** menu on the task bar, select **Programs/Administrative Tools (Common)/ Windows NT Diagnostics**. Select the **Version** tab and write down the version number and service pack number; for example: 4.00.1381 and Service Pack 2. Then select the **Memory** tab and write down the amount of memory listed under Physical Memory - Total; for example: 16 MB RAM.

Other CD-ROM drives

Your computer may have come with an internal CD-ROM or you may have purchased a CD-ROM drive. Check the documentation that came with your computer or CD-ROM drive. *Example: Mitsumi 4x CD-ROM*

Sound board

Your computer may have come with a sound board and speakers or you may have purchased them separately. Check the documentation that came with your computer or sound board. *Example: Sound Blaster*

IDE controller settings

- 1. Insert the CD labeled "Software Disc 1" into your CD-ROM drive.
- Click the **Start** button on the task bar, select **Run**, type D:\ASSIST /S (where D: is your CD-ROM's drive letter) and click on **OK**.
- 3. Print the results. You will have a list of technical information about each IDE controller in your system and each device attached.

Other IDE devices

Any devices attached to IDE controllers in your computer system, such as a CD-ROM drive, hard drive, tape drive, and so on. *Example: HP Colorado 5GB*

IDE adapter board brand/model

If you are using a paddle board to add another IDE controller to your computer system, check the manual that came with your IDE board. Example: $GSI\ 2C$

HP Customer Support

If you need help with your CD-Writer Plus drive, your local reseller has the latest information regarding HP products and services and can provide support under HP's comprehensive menu of reseller services. If your reseller is not able to help, you can obtain support from HP directly either through free 24-hours/day interactive electronic services or by telephone (free during warranty). To get help with the software that came with CD-Writer Plus, call the appropriate number listed below (free during warranty).

 America Online
 Keyword: hpstor

 CompuServe
 Go HPSYS

 World Wide Web
 www.hp.com/isgsupport/cdplus

 Bulletin board site (8,N,1,F, 1200-28.8K baud)
 Europe

 Europe
 +31 (0)495 546909

 Asia/Pacific
 (03) 9890 0276

 Korea.
 Hitel: (02) 762-0228

 Access: Go HPK
 Chollian: (02) 220-2001

 New Zealand.
 (09) 356 6642

 Taiwan
 (02)9233233

 First Name: HP
 Last Name: BBS

HPFirst Faxback Service

Simply dial the fax number from a touch-tone phone or Group 3 fax machine and follow the voice prompts to select the index of available support and product information documents.

USA and Canada 800-368-9673 or 970-635-1510
Europe
Austria (free line)
Belgium (free line)
- Dutch
- French
Denmark (free line)
Finland (free line)9800 13134
France (free line)
Germany (free line)
Italy (free line)
Netherlands (free line)
Norway (free line)
Spain (free line)
Sweden (free line)
Switzerland (free line)
- French
- German
United Kingdom (free line)
Other locations in Europe (toll line) +31 (0)20 681 5792

Asia/Pacific
Australia
China
Japan
Korea
New Zealand(09) 356 6642
Singapore
Taiwan
E-mail
FTP Site ftp.hp.com
Login:anonymous
Password: (Your email address)
Directory: /pub/information_storage/surestore/cd-writer_plus
Telephone
USA and Canada (6am-10pm weekdays, 8am-5pm weekends, Mountain time;
Starting in November 1998 support available 24 hours a day, 7 days a week)
Literature and dealer referral
Canada (for French-speaking customers)
pour assistance en français 800-387-3867
During warranty period
- Technical support
After warranty period (charges begin only when you connect to a Support Technician,
prices are subject to change without notice)
Technical Support
(Per incident fee of \$25 US dollars charged to
Visa, MasterCard or American Express) U.S. only Technical Support
(\$2.50 per minute/maximum of \$25. You must be 18 years
of age or have parental permission to call 900 numbers.)
Europe (M-F, 8:30-18:00 Central European Time)
Use these Technical Support numbers during and after your warranty period. No charge
for Technical Support during warranty period. Per incident charge after warranty period
Austria
Belgium
- Dutch
- French
Czech Republic42 2 471 7321
Denmark
Finland
France01 43 62 3434
Germany0180 52 58 143
Hungary
Ireland
Italy02 2 641 0350
Netherlands
Norway
Portugal
Russia
Spain90 23 21 123

Sweden	
Switzerland (French, Italian, and German) 08 48 80 11 11	
Turkey90 1 224 5925	
United Kingdom0171 512 52 02	
English language support from other countries . +44 171 512 52 02	
Latin America	
Argentina (M-F, 8:30-19:30) (54) (1) 787 8080	
Brazil (M-F, 8:00-19:00)	
Chile (M-F, 8:30-18:30) (56) (2) 800 360999	
Mexico (M-F, 8:30-18:30) (52) (5) 800 22 14700	
(52) (5) 800 90 52900	
Venezuela (M-F, 9:00-18:00)(58) (2) 207 8488	
Asia/Pacific	
Australia (M-F 7am-7pm, Eastern Standard Time) (03) 8877 8000	
China (M-F 8:30-17:30) (8610)-62625666	
extensions 5602 through 5609, 5611 and 5612	
(8610)-62614174	
(8610)-62624175	
(8610)-62614176	
Korea (M-F, 8:30-19:00) (02) $3270\text{-}0700 \ / \ 080\text{-}999\text{-}0700$ (toll free)	
New Zealand (M-F, 9am to 9pm Auckland Time) (09) 356 6640	
Singapore (M-F, 9:00-17:00)	
Taiwan (M-F, 8:30-17:30) (02) 717-9609	
FAX	
USA970-667-0997	
Asia/Pacific	
Australia	
Korea	
New Zealand	
Singapore	
Taiwan	
1	

Returning a Drive

If your Hewlett-Packard product requires repair or replacement, call the appropriate number for your country from the list beginning on page B-6 in Appendix B: Customer Support, to receive instructions.

Index

Α

access time 3-7, A-2, A-3 adding graphics to inserts 7-6 application software installing A-1 uninstalling 1-34 arranging track titles 7-7 assigning drive letter 3-4-3-5 audio cable 1-15, 1-29, 3-3 purchasing 1-17, 1-31 Audio CD Layout window 6-4 audio CDs CD-RW in car CD player 4-2 track-at-once mode 8-1 audio distortion 3-3-3-4. A-3 audio tracks 6-2 combined with wave files 6-7 pre-recording to wave files 6-6 recording 6-3 automatic protection of files 9-4

В

boot order settings 3-3 booting from CD-Writer drive 3-3 buffer size A-3 buffer underrun 3-6-3-7

C

cable select 1-8, 1-25, 1-35, 1-36, 1-37 cables

```
audio 1-15, 1-17, 1-29, 1-31, 3-3
    data 1-11, 1-13, 1-15, 1-29, 1-35, 1-36, 1-
    power 1-14, 1-19, 1-33, 1-35, 1-36
capacity, CD A-3
CD Copier
    changing temp directory location 8-4
    disc copy option 8-4
    selecting destination drive 8-3
    selecting source drive 8-3
    starting 8-2
    test options 8-3
    types of CDs that can be copied 8-1
CD layout
    about 6-3
    changing song order 6-8
    modifying 6-8
    opening 6-9
    removing songs 6-8
    renaming songs 6-8
    saving 6-9
CD-DA 6-1
CD-R
    sharing 4-3
    using 4-3
CD-R sharing
    created with DirectCD 4-3
    created with Easy-CD Creator 4-4
CD-ROM drive
    changing drive letter 3-4-3-5
    cleaning CDs 2-4
    driver files 3-4
    identifying 3-4, B-3
    identifying drive letter 1-36, 2-4
    installing application software A-1
    MultiRead 4-2
    problem reading CDs 3-4
    replacing with CD-Writer 1-20
    SCSI 2 3-3
    sharing data cable 1-9
    using CD-RW 4-2
CD-ROM drives
    recording audio 6-4
CD-ROM XA 8-2
CD-RW
```

audio CDs 4-2

sharing 4-2	speakers 1-15, 1-29
sharing with standard CD-ROM 4-2	supported discs A-4
using 4-1	system requirements A-1
CDs	uninstalling 1-34
cannot find CD 3-4-3-5	using earphones or speakers 3-3
capacity A-3	changed files, protection of 9-15
cleaning 2-4	changing song order 6-8
copy prevention feature 3-3	changing text attributes 7-6
error, cannot find CD 1-37	cleaning CD-Writer drive 2-4
inserting 2-1-2-2	CMOS boot order settings 3-3
maintenance 2-4	compatibility A-1
multi-session 3-4	compression software 3-6
power loss while writing 3-5	computer
problems inserting 2-2	identifying model B-3
purchasing 2-3	locating IDE controller 1-35
reading problem 3-4	processor speed A-1, A-2
removing 2-2	removing cover 1-5, 1-22
rewritable 2-2, A-4	removing drive bay cover plate 1-6
selecting 2-2	replacing cover 1-19, 1-33
supported by CD-Writer drive A-4	sound board 1-15, 1-29, B-3
unable to locate 3-4	system requirements A-1
write-once 2-3, 3-4, A-4	connecting
CD-Writer drive	data cable 1-13
audio cable 3-3	power cable 1-14, 1-28
booting from 3-3	power cord 1-19, 1-33
changing drive letter 3-4-3-5	connector
compatibility problems 3-7	data cable 1-10
Customer Support B-1	power 1-14
data cable 1-13, 1-35, 1-36	contacting Customer Support B-1
dimensions A-4	control panel for HP Simple Trax 9-12
disc data capacity A-3	copy prevention feature 3-3
hardware installation 1-2	copying
identifying drive letter 1-36, 2-4	audio CDs 8-1
jumper setting 1-8, 1-25, 1-35, 1-36, 1-37	DirectCD discs 8-2
model number B-2	mixed-mode CDs 8-2
not recognized 1-36, 3-4–3-5	photo CDs 8-2
optimizing performance 3-6, A-2	video CDs 8-2
performance A-2-A-3	copying CDs
performance enhancement 3-7	making mulitple copies 8-4
power cable 1-14, 1-19, 1-33, 1-35, 1-36	steps 8-3
recording 1-15, 1-29	copying from CD to CD 3-3
returning B-8	copyright notice 6-2, 8-1
securing 1-18, 1-32	cover plate, removing 1-6
selecting CDs 2-2	creating a protection list 9-3
serial number 1-24, B-2	creating audio CDs 6-5
sharing IDE controller 1-35, 1-36, 1-37	CTRL-ALT-DEL 3-5

Customer Support, contacting B-1	installing the CD-Writer drive 1-9
customizing jewel case inserts 7-2	removing cover plate 1-6
	drive letter
	changing 3-4-3-5
	identifying 1-36, 2-4
D	driver files
	CD-ROM drive 3-4
data cable 1-11, 1-15, 1-29	
connecting 1-13	
connector 1-10	_
sharing 1-35, 1-36, 1-37	E
troubleshooting 1-35, 1-36	
defining text attributes 7-5	earphones 3-3
Device Manager B-2	Easy-CD Audio
digital audio extraction 6-4	Online Help 5-8, 6-10, 7-9, 8-5
dimensions A-4	wizard 6-3
DirectCD	Easy-CD Creator
sharing CD-R 4-3	sharing CD-R 4-4
starting 5-2	eject button 2-1, 2-2
DirectCD discs	ejecting DirectCD discs 5-4
about formatting CD-RW disc 5-3	email 3-6
adding data 5-4, 5-5	environmental specifications A-4
ejecting 5-4	erasing files from CDs 5-5
formatting 5-3	error logs tab in HP Simple Trax 9-15
disaster recovery 10-1	error message
disaster recovery glossary 10-8	buffer underrun 3-6-3-7
disaster recovery set	cannot find CD 1-37, 3-4-3-5
creating 10-2	invalid media 3-3
testing 10-3	unable to read 3-4
disc data capacity A-3	error rate A-3
disc labels	expanding power connector 1-14
printing 7-8	
disconnecting, power cord 1-5, 1-22	
discs	_
sharing CD-R 4-3	F
sharing CD-RW 4-2	
using CD-R 4-3	fax mode 3-6
using CD-RW 4-1	files
displaying	automatic protection 9-4
grids 7-4	changed, protection of 9-15
track numbers 7-8	filters 9-10
track times 7-8	protected versions of 9-8
distortion	protection history 9-8
audio 3-3-3-4	protection of 9-2
video 3-4	retrieving 9-6
drive bay 1-6, A-1	finding in HP Simple Trax 9-9
	-

firmware version B-2	Install Assistant A-1
fitting tracks on a page 7-8	Install Recommendation
formatting DirectCD discs 5-3	data cable 1-11
C	jumper setting 1-8, 1-25
	printout 1-8, 1-11, 1-25
	installing
H	computer cover 1-19, 1-33
•	master/slave jumper 1-8, 1-25, 1-37
half-height drive bay 1-6	installing application software A-1
Handling CDs 2-3	installing hardware 1-2
hard drive	Interchange 4-4
access time 3-7, A-2	invalid media error 3-3
compression software 3-6	IRQ channel 3-7
speed A-2	-
storage requirements A-1	
transfer rate A-1, A-2	
hardware installation 1-2	J
Help	•
Easy-CD Audio 5-8, 6-10, 7-9, 8-5	jewel case inserts
high-pressure air 2-4	adding graphics 7-6
history of protection for a file 9-8	editing 7-2
HP Simple Trax	editing 7-2 editing text 7-6
control panel 9-12	graphics
error logs tab 9-15	OLE objects 7-6
protecting files 9-2	making 7-2
protecting files 3-2 protection list 9-3	positioning 7-4
retrieving protected files 9-6	printing 7-4
schedule setup tab 9-14	rulers and grids, using 7-3
scheduling a protection session 9-4	viewing 7-2
selection tab 9-13	zooming 7-3
humidity specifications A-4	jewel case layout 7-2
numury specifications A 4	Page menu 7-2
	jumper setting 1-8, 1-25, 1-35, 1-36, 1-37
	Jumper setting 1-6, 1-23, 1-33, 1-30, 1-37
1	
•	
I/O address 3-7	M
IDE controller 1-9, A-1	
adding B-4	maintenance 2-4
locating 1-2, 1-35	making a disc copy 8-4
resource conflicts 3-7	making multiple copies 8-4
settings B-3	master jumper setting 1-8, 1-25, 1-35, 1-36, 1
sound board 1-11, 1-35	37
identifying drive letter 1-36	mastering application 4-4
inserting a CD 2-1-2-2	measuring inserts and objects 7-3
inserting objects 7-6	memory A-1, A-2, B-3

metric screws 1-18, 1-32	printing disc labels 7-8
model number, locating B-2	
modifying CD layouts 6-8	jewel case inserts 7-8
MSCDEX version 3-4 MultiRead CD-ROM 4-2	printout, Install Recommendation 1-8, 1-11, 1-25
multi-session CD 3-4	processor speed A-1, A-2
music CDs	product certification v
playing 6-9	programs
	running other 3-6
	uninstalling 1-34
	protecting
N	automatically 9-4
	changed files 9-15
networks 3-6	definition of 9-1
	files 9-2
	schedule for 9-4
	protection list, adding files to 9-3
0	protection, file's history of 9-8
9	purchasing
OLE objects 7-6	audio cable 1-17, 1-31
opening CD layouts 6-9	
opening tray 2-1	
operating system	R
compatible A-1	R
compatible A-1	RAM. See memory
compatible A-1	RAM. See memory reading error 3-4
compatible A-1 identifying B-3	RAM. See memory reading error 3-4 reading from CD
compatible A-1	RAM. See memory reading error 3-4 reading from CD speed A-3
compatible A-1 identifying B-3	RAM. See memory reading error 3-4 reading from CD speed A-3 recording
compatible A-1 identifying B-3 P paddle board B-4	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36 power connector 1-14	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22 drive bay cover plate 1-6
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36 power connector 1-14 power cord	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22 drive bay cover plate 1-6 removing a CD 2-2
paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36 power connector 1-14 power cord connecting 1-19, 1-33	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22 drive bay cover plate 1-6 removing a CD 2-2 removing songs from CD layout 6-8
paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36 power cord connecting 1-19, 1-33 disconnecting 1-5, 1-22	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22 drive bay cover plate 1-6 removing a CD 2-2 removing songs from CD layout 6-8 renaming songs in CD layout 6-8
compatible A-1 identifying B-3 P paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36 power connector 1-14 power cord connecting 1-19, 1-33 disconnecting 1-5, 1-22 power loss while writing 3-5	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22 drive bay cover plate 1-6 removing a CD 2-2 removing songs from CD layout 6-8 renaming songs in CD layout 6-8 replacing a CD-ROM 1-20
paddle board B-4 Page menu 7-2 performance A-2-A-3 optimizing 3-6, A-2 playing music CDs 6-9 positioning objects 7-4 power cable 1-14 connecting 1-14, 1-28 troubleshooting 1-35, 1-36 power cord connecting 1-19, 1-33 disconnecting 1-5, 1-22	RAM. See memory reading error 3-4 reading from CD speed A-3 recording CD to CD 3-3 power loss during 3-5 while running other applications 3-6 recording audio tracks 6-3 recording wave files 6-5 recovering your data 10-4 refreshing the screen 3-4, 3-5 removing computer cover 1-5, 1-22 drive bay cover plate 1-6 removing a CD 2-2 removing songs from CD layout 6-8 renaming songs in CD layout 6-8

retrieving	T
options 9-7	
protected files 9-6	temp directory
returning a CD-Writer drive B-8	changing location 8-4
rewritable CDs 2-2, 3-4, A-4	temperature specifications A-4
ruler option 7-3	test options
	CD Copier 8-3
	text attributes
_	changing 7-6
\$	defining 7-5
	track column lists 7-7
saving CD layout 6-9	track titles
scheduling	arranging 7-7
protection session 9-4	track-at-once mode 8-1
setup tab in HP Simple Trax 9-14	tracks
screws 1-18, 1-32	combining with wave files 6-2
searching in HP Simple Trax 9-9	transfer rate A-1, A-2, A-3
securing the CD-Writer drive 1-18, 1-32	tray, opening and closing 2-1, 2-2
selection tab in HP Simple Trax 9-13	troubleshooting 3-1-3-7
serial number 1-24, B-2	audio cable 3-3
sharing CD-R	audio distortion 3-3-3-4
created with DirectCD 4-3	booting from CD-Writer drive 3-3
created with Easy-CD Creator 4-4	cannot find CD 1-37
sharing CD-R discs 4-3	copying from CD to CD 3-3
sharing CD-RW discs 4-2	Customer Support B-1
sharing data cable 1-35, 1-36, 1-37	data cable 1-35, 1-36
Simple Trax. See HP Simple Trax	I/O address 3-7
slave jumper setting 1-8, 1-25, 1-35, 1-36, 1-	inserting CDs 1-37, 2-2
37	invalid media 3-3
snapping objects to grid 7-4	IRQ 3-7
software	not recognizing CD-Writer drive 1-36
uninstalling 1-34	power cable 1-35, 1-36
software compression 3-6	resource conflicts 3-7
songs	returning your CD-Writer drive B-8
removing from CD layout 6-8	sound board 1-35
renaming 6-8	using the Install Recommendationt 1-35
sound board 1-15, 1-29, 3-3, B-3	video distortion 3-4
IDE controller 1-11, 1-35	writing to CD 3-6
sound system 1-15, 1-29	types of CDs that can be copied 8-1
sound-muting feature 3-3	
speakers 1-15, 1-29, 3-3	
speed	11
reading from CD A-3	U
writing to CD A-2, A-3 system requirements A-1	
system requirements A-1	uninstalling 1-34

V

vibration specifications A-4 video card 3-4 video distortion 3-4 viewing jewel case inserts 7-2 viewing protected versions 9-8 volume control 3-3

W

```
wave files 3-4, 6-2
combining with audio tracks 6-2
pre-recording from audio tracks 6-6
recording 6-5
specifications 6-5
windows explorer 6-4
wizard
making music CDs 6-3
write-once CDs 2-3, 3-4, 3-6, A-4
writing to CD 1-15, 1-29, 3-3, 3-6
power loss while writing 3-5
speed A-2, A-3
```

Υ

Y-power cable 1-14